**To:** Grundler, Christopher[grundler.christopher@epa.gov]; Argyropoulos, Paul[Argyropoulos.Paul@epa.gov]
**Cc:** Brent Erickson[berickson@bio.org]; Matthew Carr[mcarr@bio.org]
**From:** Erick Lutt
**Sent:** Wed 1/29/2014 12:23:19 AM
**Subject:** BIO Comments on 2014 RFS, Docket ID No. EPA-HQ-OAR-2013-0479 and Waiver Petitions, Docket ID No. EPA-HQ-OAR-2013-0747
BIO Comments-EPA PR 2014 RFS RVOs-Docket ID No EPA-HQ-OAR-2013-0479.pdf
BIO Comments EPA Petitions for RFS Waiver - Docket ID No EPA-HQ-OAR-2....pdf
Appendix II - BIO - 09-24-13 Letter - API AFPM Petition Docket ID No. EPA-HQ-OAR-2013-0747.pdf
Appendix III - BIO - 10-24-13 Letter - Response to Valero 2014 RFS Petition Docket ID No. EPA-HQ-OAR-2013-0747.pdf
Appendix IV - Valero - 09-09-13 RFS Waiver Petition Docket ID No. EPA-HQ-OAR-2013-0747.pdf

Chris and Paul,

Please find attached the Biotechnology Industry Organization's (BIO) comments on the U.S. Environmental Protection Agency's (EPA) Proposed Rule on the 2014 Standards for the Renewable Fuel Standard (RFS) Program and the renewable volume obligations (RVO) for biofuels in 2014, Docket ID No. EPA-HQ-OAR-2013-0479. BIO submitted its comments and supporting appendices through regulations.gov. Due to size restraints, we are not including the appendices on this email, but they can be made available by request.

Also attached, is BIO's response, and its supporting appendices to EPA's request for comments on petitions for a waiver of the renewable fuel standards (RFS) that would apply in 2014, Docket ID No. EPA-HQ-OAR-2013-0747.

Please let us know if you have any questions.

All the best,


**Erick Lutt**

Director, Industrial & Environmental Section

Biotechnology Industry Organization

Direct: 202.962.6641/Mobile: 202.701.8153

elutt@bio.org

January 28, 2014

The Honorable Gina McCarthy
Administrator, Environmental Protection Agency
Air and Radiation Docket and Information Center
Mailcode: 2822T
1200 Pennsylvania Avenue NW
Washington, DC 20460

**Docket ID No. EPA-HQ-OAR-2013-0479**

Dear Administrator McCarthy:

## I. Introduction

The Biotechnology Industry Organization ("BIO") is pleased to have the opportunity today to comment on the U.S. Environmental Protection Agency's ("EPA") Proposed Rule on the 2014 Standards for the Renewable Fuel Standard (RFS) Program[1] ("the proposed rule") and the renewable volume obligations (RVO) for biofuels in 2014.

BIO is the world's largest trade association representing biotechnology companies, academic institutions, state biotechnology centers and related organizations across the United States and in more than 30 other nations. BIO members are involved in the research and development of innovative healthcare, agricultural, industrial and environmental biotechnology products.

BIO represents nearly 90 companies leading the development of new technologies for producing conventional and advanced biofuels. Through the application of industrial biotechnology BIO members are improving conventional biofuel processes, enabling advanced and cellulosic biofuel production technologies and speeding development of new purpose grown energy crops. Our membership includes four companies EPA cites in its proposed rule as producing commercial gallons of cellulosic biofuels in 2014[2].

### a. Biofuels are lowering fuel costs, reducing dependence on foreign oil, creating jobs, and providing environmental benefits.

Congress established the RFS to encourage the use of conventional biofuels and the development of advanced and cellulosic biofuels in order to reduce our reliance on the rising cost and price volatility of oil. The RFS has already provided real benefits to America's economy by reducing dependence on foreign oil, creating jobs, and providing environmental benefits.

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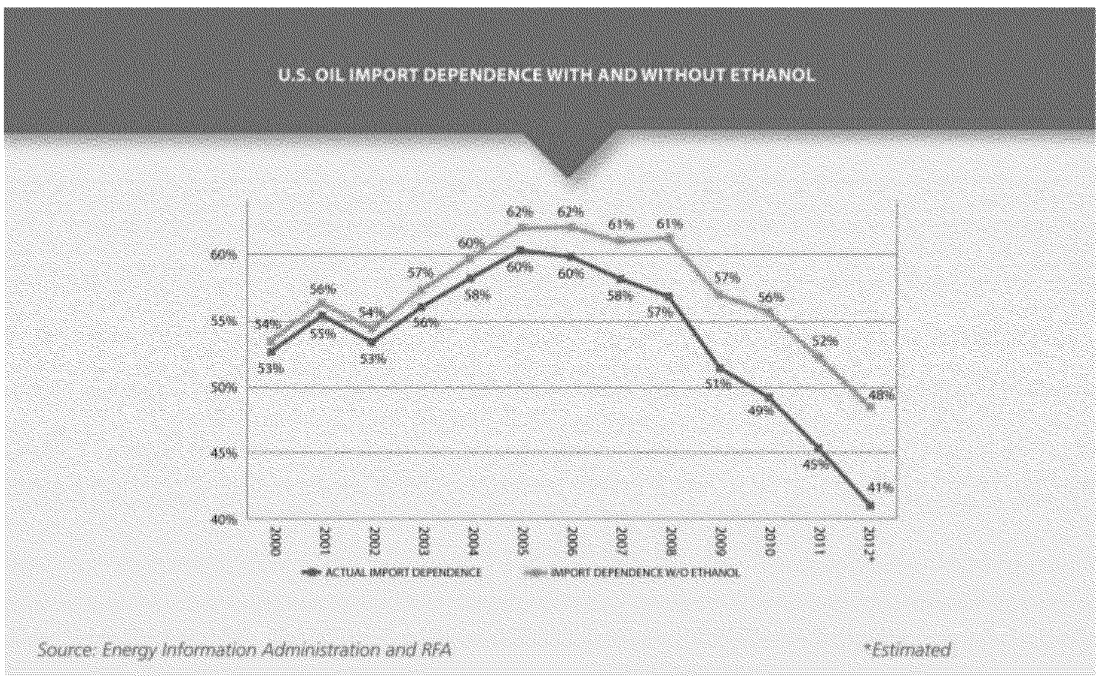
[1] 2014 Standards for the Renewable Fuel Standard Program, 78 Fed. Reg. 230, 71732 (proposed Nov. 29, 2013) (to be codified at 40 C.F.R. pt. 80) (available at: http://www.gpo.gov/fdsys/pkg/FR-2013-11-29/pdf/2013-28155.pdf) [hereinafter *The Proposed Rule*].

[2] *Visible Progress in Biorefinery Commercialization, Industrial Biotech Companies Show Progress in Commercialization,* Biotechnology Industry Organization, Jun. 15, 2012, available at: http://www.bio.org/articles/visible-progress-biorefinery-commercialization (Appendix I)

The RFS has contributed to improved energy security. Ethanol and biodiesel already represent 10 percent of the nation's motor fuel supply. This means motor fuel that would have been made from oil, most likely from foreign sources, is now being produced in the U.S. at facilities typically in rural areas, providing high-skilled jobs and keeping revenues in the country. As noted by the U.S. Energy Information Administration (EIA), U.S dependence on imported oil has declined since peaking in 2005, in part because of the increased use of biofuels[3] as mandated by the first RFS passed in 2005's Energy Policy Act (P.L. 109-58).

Since 2000, increased use of biofuels has reduced dependence on foreign oil by 25 percent. While the decline in oil imports from 60 percent to 41 percent can be partially attributed to increased domestic production and more efficient vehicles, without ethanol, import dependence would have been 48 percent.[4]




Without the RFS, U.S. dependence on imported oil would be higher, despite increases in domestic oil production and falling demand. While there is much discussion of energy independence in "North America," since we get much of our imported oil from Canada, we continue to send more than $1.3 billion outside our borders every day for oil. Every barrel of oil we import, even from our neighbors to the north, adds to our growing deficit and to our energy insecurity.

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[3] Energy Information Administration, *How dependent are we on foreign oil*, at http://www.eia.gov/energy_in_brief/article/foreign_oil_dependence.cfm (Appendix II)

[4] Renewable Fuels Association, *Ethanol Facts: Energy Security*, at http://www.ethanolrfa.org/pages/ethanol-facts-energy-security (Appendix III)

The problem is that we are overly reliant on oil as the sole source of our transportation fuel. Consumers are captive to rapid spikes in prices at the pump when an oil refinery shuts down for any reason, whether a natural disaster or a planned retooling – as occurred last spring in Minnesota just ahead of the Memorial Day weekend.[5] To be able to control prices at the pump and balance our trade deficits, we must continue to build a domestic biofuel industry and make changes to our fuel supply infrastructure to enable greater use and flexibility in fuel supplies.

Since 2000, the RFS2 has helped reduce dependence on foreign oil by 25 percent.[6] In 2011, biofuels produced and consumed in the U.S. reduced oil imports by more than 200 million barrels, keeping $22 billion here in the U.S. [7] Biofuels and new renewable technologies being spurred by the RFS are providing solutions to our energy challenges. This saves the average American about $1200 a year in fuel costs because ethanol is a cheaper blending alternative than other petroleum-based products. As has been demonstrated in a number of academic and independent research studies, biofuels reduce the overall price of gasoline and save American consumers money at the pump.[8,9] Looking ahead, according to a study from researchers at the DOE's Oak Ridge National Laboratory, the RFS is helping to hold down motor fuel prices. The study found that <u>increased use of biofuels will reduce motor fuel prices by 3 percent in 2015 and approximately 7 percent in 2022.</u>[10]

The RFS is also working to boost the U.S. economy. According to researchers at the DOE's Oak Ridge National Laboratory, the RFS is producing positive economic effects for the U.S. and the benefits will increase by 2022 when the RFS reaches its goal of 36 billion gallons of renewable fuel. According to the study, the RFS will contribute a 0.8 percent increase to the gross domestic product by 2022.[11]

It has driven the development of high skilled well-paying jobs in rural America. <u>Biofuel production under the RFS has led to the employment of 380,000 Americans, and is expected to produce up to an additional 800,000 employment opportunities by 2022.</u>[12] It is

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[5] Gary Strauss, "Refinery woes cause nationwide gas price spike," Detroit Free Press, May 17, 2013. http://www.freep.com/article/20130517/BUSINESS07/305170039/Refinery-woes-cause-nationwide-gas-price-spike. (Appendix IV)
[6] Renewable Fuels Association.
[7] *Global economic effects of US biofuel policy and the potential contribution from advanced biofuels,* at *http://www.future-science.com/doi/abs/10.4155/bfs.12.60* (Appendix V)
[8] *Impact of Ethanol Production on the U.S. and Regional Gasoline Markets: An Update to 2012,* at http://www.card.iastate.edu/publications/synopsis.aspx?id=1166 (Appendix VI)
[9] *The Impact of Ethanol Production on the U.S. Gasoline Market,* at *http://www.ethanol.org/pdf/contentmgmt/The_Impact_of_Ethanol_Production_on_the_US_Gasoline_Market.pdf* (Appendix VII)
[10] ScienceDaily, *Biofuels Can Provide Viable, Sustainable Solution to Reducing Petroleum Dependence, Study Shows,* February 11, 2009, at http://www.sciencedaily.com/releases/2009/02/090210133920.htm (Appendix VIII)
[11] Biofuels, *Global economic effect of US biofuel policy and the potential contribution from advanced biofuels*, November 2012, Vol. 3, No. 6, Pages 703-723, at http://www.future-science.com/doi/abs/10.4155/bfs.12.60(Appendix V)
[12] Bio Economic research Associates, "U.S. Economic Impact of Advanced Biofuels Production: Perspectives to 2030." Washington, DC: February 2009

crucial we maintain the RFS in order to ensure these economic and energy security benefits are fully realized.

Environmentally, the RFS represents the nation's only Congressionally authorized greenhouse gas reduction program. Production under the RFS is subject to strict lifecycle GHG reduction requirements of up to 60 percent compared to traditional petroleum-derived fuel. As a result, in 2012, using renewable fuel slashed greenhouse gas emissions by 33.4 million metric tons.[13] EPA has estimated that renewable fuels use under the RFS will reduce greenhouse gas emissions by 138 million metric tons per year when the program is fully implemented in 2022.[14] The reduction would be equivalent to taking about 27 million vehicles off the road.

In practice, greenhouse gas reductions under the RFS are likely to be even more significant. The greenhouse gas emissions of conventional fuel in 2012 were lower than that predicted by the EPA for 2022.[15] In addition, many cellulosic and other advanced biofuel pathways approved by EPA already substantially exceed the minimum GHG reductions required by the law. For example, the INEOS Bio process, which is being commercialized at a new biorefinery in Vero Beach, Florida, reduces greenhouse gas emissions up to 91% when running residual municipal solid waste as a feedstock. When the process utilizes food and yard waste, the process results in GHG emissions savings of 109% — a net carbon savings. This is because the process also generates electricity that would otherwise come from fossil energy and because the wastes would emit methane if otherwise landfilled. Future feedstock and conversion technology improvements will drive GHG reductions even further, with many pathways likely to be net carbon sinks representing greater than 100% reductions relative to the petroleum baseline.

In contrast, lifecycle GHG emissions for petroleum are increasing with time. "Well-to-Wheel GHG emissions" of gasoline produced from Canadian tar sands, for example, emit 14% to 20% more GHGs than the weighted average of transportation fuels sold or distributed domestically. Excluding the final use combustion, "Well-to-Tank" GHG emissions of oil sands crudes are on average 70% to 110% higher than for the average domestic transportation fuel.[16] And crude oil from Canada has grown to proportionally larger percentage of the U.S. transportation fuel mix since 2005 – the EPA baseline year. The United States is the destination for 99 percent of Canada's oil. About half of Canada's exports come from oil sands, and since 98 percent of Canada's reserves are in oil sands,

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[13] Renewable Fuels Association, "Battling for the Barrel: 2013 Ethanol Industry Outlook." Washington, DC: February 2013, p.18.
[14] US EPA, "Renewable Fuel Standard Program (RFS2) Regulatory Impact Analysis." Washington, DC: EPA-420-R-10-006, February 2010.
[15] Steffen Mueller, John Kwik. New Report: 2012 Corn Ethanol - Emerging Plant Energy and Environmental Technologies, http://www.erc.uic.edu/PDF/mueller/2012_corn_ethanol_draft4_10_2013.pdf (Appendix IX)
[16] Lattanzio, R. "Canadian Oil Sands: Life-Cycle Assessments of Greenhouse Gas Emissions (7-5700/R42537)." Washington: Congressional Research Service, March 15, 2013. http://www.fas.org/sgp/crs/misc/R42537.pdf (Appendix X)

that percentage is expected to increase.[17] While U.S. oil imports overall have fallen, U.S. oil imports of Canadian oil have increased.[18]

The GHG reductions produced by the RFS are a vital part of the nation's effort to combat climate change. It is crucial we maintain the RFS to achieve these environmental gains.

**b. Advanced and cellulosic biofuels have made commercial progress and are capable of rapid scale up. They require capital investment that depends on a viable market for their product.**

The RFS is the single most important federal policy driving investment and commercialization of advanced and cellulosic biofuels. This policy is not only driving the development of liquid fuels, but more efficient biotechnology products and value added products from the biorefinery process such as renewable chemicals. Due in large part to the driving force of the RFS, the U.S. is the global leader in the development and deployment of next generation biofuels.

To date, these companies have invested more than $5.79 billion in private capital here in the United States in building the advanced and cellulosic biofuels industry[19]. This investment has been matched with $2.1 billion in federal or state grants and loans. As a result, 28 out of 50 states have at least one existing or planned biorefinery, totaling 77 facilities across the country. This includes the five cellulosic biofuel facilities EPA projects to produce commercial gallons of cellulosic biofuels in 2014 and an increasing number of renewable chemical facilities.

**c. Inconsistent regulatory policy undercuts investment and impedes progress in advanced biofuels.**

Our member companies are deeply concerned the proposed rule is a fundamental change in direction and sets a troubling precedent for the RFS in 2014 and beyond. By fundamentally changing the agency's well-established methodology for setting RVOs, this proposal creates an inconsistent regulatory climate that will undercut investment and undermine the development of advanced and cellulosic biofuels just as they are set to produce millions of commercial gallons and launch a rapid scale up. Even more damaging, the new methodology signals to biofuel producers and their investors there will be little to no market for advanced and cellulosic biofuels poised to come onto the market in the near future.

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[17] U.S. Energy Information Administration, Country Analysis: Canada. http://www.eia.gov/countries/cab.cfm?fips=CA (Appendix XI)
[18] U.S. Energy Information Administration, "Canada Week: Canada is the leading supplier of crude oil to the United States." Today in Energy, November 28, 2012. http://www.eia.gov/todayinenergy/detail.cfm?id=8950 (Appendix XII)

[19] *The Renewable Fuel Standard*, *Timeline of a Successful Policy*, Biotechnology Industry Organization, Jun. 29, 2012, available at: http://www.bio.org/articles/renewable-fuel-standard-timeline-successful-policy (Appendix XIII)

### i. Most damaging inconsistency is in assessment of "available supply."

In finalizing the 2013 RFS[20], EPA determined that biofuel producers were capable of supplying 16.55 billion gallons of renewable fuel to the nation's fuel supply. Despite continued rapid deployment of conventional and advanced biofuels since issuance of the 2013 final rule, the Agency's 2014 proposal reduces the total renewable fuel requirement down to 15.21 billion gallons. In the short term, this means over 1.3 billion gallons of conventional biofuel production capacity will be shut down, potentially closing 10 to 20 plants, stranding $4 billion of investment, and resulting in direct job losses for roughly 1,000 employees[21]. Longer term, this proposed rule signals to the companies building up the advanced and cellulosic biofuels industry and their investors that the RFS, which has been the primary market driver in the development of this next generation of fuels, can no longer be counted on to ensure a market for new production. Instead of encouraging the obligated parties – who have control of fuel distribution – to invest in the infrastructure to offer more options to consumers to use biofuels, this proposed rule validates the mythical "blend wall." It rewards obligated parties for the failure to prepare for compliance and eviscerates the program's ability to drive adoption of the next generation of biofuels. The proposal signals to the developers of advanced and cellulosic biofuels that there is no reliable expectation of a market for these fuels, and to their investors that there is little assurance of a return on investment.

## II. EPA Does Not Have Authority to Make Proposed Reductions to 2014 Advanced and Total Renewable Fuel Volume Obligations

EPA does not have the authority to make its proposed reductions to the statutory volume obligations for total renewable and advanced biofuels under the RFS using its general and cellulosic waiver authorities, as made clear by the Agency's own past interpretation and application of its authority under those waiver provisions. In addition, a court would not likely uphold the 2014 RFS rule as proposed, given that EPA's proposed interpretation of its authority under the general and cellulosic waiver authorities exceeds the bounds of appropriate deference under the law. For these reasons, along with those presented in the other sections of these comments, we respectfully urge the EPA to reconsider its proposed reductions and maintain the statutory RFS 2014 renewable volume obligations (RVOs) for total renewable and advanced biofuels.

### a. EPA's Proposed Reductions to Advanced and Total Renewable Fuel

As EPA points out in the proposed rule, "[w]hen [it] lower[s] the applicable volume of cellulosic biofuel below the volume specified in [Clean Air Act, Section] 211(o)(2)(B)(i)(III), [it] also ha[s] the authority to reduce the applicable volumes of

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[20] Regulations of Fuels and Fuel Additives: 2013 Renewable Fuel Standards, 78 Fed. Reg. 158, 49794 (finalized Aug. 15, 2013) (to be codified at 40 C.F.R. pt. 80) (available at: http://www.gpo.gov/fdsys/pkg/FR-2013-08-15/pdf/2013-19557.pdf).

[21] Parker, Mario and Kassai, Lucia. "Ethanol mills face closures as Obama cuts target." St. Louis Post-Dispatch. 4 Dec. 2013: available at: http://www.stltoday.com/business/local/ethanol-mills-face-closures-as-obama-cuts-target/article_b3b2b6a2-2edc-5506-bb8c-42bf7bab93d2.html (Appendix XIV)

advanced biofuel and total renewable fuel by the same or a lesser amount." This is generally referred to as EPA's cellulosic waiver authority. EPA may "also reduce the applicable volumes of advanced biofuel or total renewable fuel under the general waiver authority provided at CAA [Section] 211(o)(7)(A) under *certain conditions*"[22] (emphasis added). This is generally referred to as EPA's general waiver authority.[23] Under the general waiver authority, EPA may reduce the applicable volumes (1) "based on a determination by the Administrator, after public notice and opportunity for comment, that implementation of the requirement would severely harm the economy or environment of a State, a region, or the United States;"[24] or (2) "based on a determination by the Administrator, after public notice and opportunity for comment, that there is an *inadequate domestic supply*"[25] (emphasis added).

In the proposed rule, EPA proposes to utilize its cellulosic waiver authority to reduce volumes of advanced and total renewable fuels. The Agency explains that, while under the cellulosic waiver authority, "[t]he statute does not provide any explicit criteria that must be met or factors that must be considered when making a determination as to whether and to what degree to reduce the advanced biofuel and total renewable fuel applicable volumes…EPA must provide a reasoned explanation for any decision to reduce [those] volume requirements."[26]

In this regard, the Agency refers to the same justification as for its use of its general waiver authority to make further reductions to the total renewable fuel obligation – based on its overly broad interpretation of "inadequate domestic supply" in the proposed rule. EPA asserts that the term "inadequate domestic supply" is an "ambiguous provision" that is "reasonably and best interpreted to encompass the full range of constraints that could result in an inadequate supply of renewable fuel to the ultimate consumers, including fuel infrastructure and other constraints…as well as factors affecting the ability to distribute, blend, dispense and consume those renewable fuels."[27]

For the reasons outlined below, BIO strongly believes that such an interpretation and approach lacks an adequate legal basis and should be rejected by the Agency in its final rule.

## III. EPA Does Not Have the Authority to Make Reductions to Total Renewable Fuel Volume Obligations Using its General Waiver Authority Under the RFS for the Reasons Cited in Its Proposed Rule

Generally, a court will evaluate whether it should defer to an agency's interpretation of its authority under a law in two steps. Under the first step, a court will ask "whether Congress has directly spoken to the precise question at issue. If the intent of Congress is clear, that is the end of the matter" because a court and an agency must defer to the clear

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[22] Environmental Protection Agency, *2014 Standards for the Renewable Fuel Standard Program; Proposed Rule*, 78 Fed. Reg. 71732, 71735 (2013) (to be codified at 40 C.F.R. pt.80 (proposed Nov. 29, 2013) [hereinafter *The 2014 RFS Proposed Rule*].
[23] *Id.*
[24] 42 U.S.C. 7545(o)(7)(A)(i).
[25] 42 U.S.C. 7545(o)(7)(A)(ii).
[26] *The 2014 RFS Proposed Rule* at 71755.
[27] *Id.*

intent of Congress.[28] To determine whether a statute yields clear Congressional intent, a court will look to a statute's "text, legislative history, structure and purpose,"[29] and often will look to whether Congress expressly included or omitted words or phrases in one part of a law but not in others.[30]

Under the second step, if a court determines that a "statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency's answer is based on a permissible construction of the statute."[31]

As discussed in great detail below, BIO strongly believes that a court would find that EPA does not have authority to make its proposed reductions to the 2014 total renewable fuel RVOs under its general waiver authority, because the term "inadequate domestic supply" in the text of CAA Section 211(o)(7)(A)(ii) expresses clear Congressional intent that the Agency only make reductions to RVOs when it determines there will be inadequate volumes of neat renewable fuels available to obligated parties. Since the intent of Congress in this regard is clear, and therefore the term "inadequate domestic supply" is not ambiguous as EPA asserts in the proposed rule, we are confident that a court would find this narrow and plain interpretation to be the end of the matter. However, even if the term were reasonably viewed as ambiguous, as EPA asserts, the Agency's interpretation of that term is not based on a permissible construction of the statute, as also explained below.

In summary, EPA's proposed reductions to the 2014 total renewable fuel obligations under its general waiver authority defy its own past guidance for evaluating potential reductions under that waiver provision. Based on that past guidance, EPA should find that <u>the term "inadequate domestic supply" is not ambiguous and that it clearly refers to the supply of neat renewable fuel available to obligated parties under the RFS.</u> It plainly does not refer to the "supply of renewable fuel to the *ultimate consumers*, including fuel infrastructure and other constraints...[or] factors affecting the ability to distribute, blend, dispense and consume those renewable fuels," as EPA now asserts in the proposed rule (emphasis added). In addition, even if the Agency could reasonably reinterpret this term so broadly, EPA should find that any lack of sufficient supply of ethanol to ultimate consumers is not the result of the RFS *itself*, but rather the ongoing dilatory tactics of many in the refining sector and among other stakeholders – and thus, cannot serve as an adequate legal basis upon which to utilize its waiver authority.

### *a. EPA Should Follow Past Precedent and Find that the Term "Inadequate Domestic Supply" Is Not Ambiguous and Refers to Adequate Volumes of Neat Renewable Fuel Available to Obligated Parties*

In its proposed rule, EPA asserts that it has the authority to interpret the term "inadequate domestic supply" broadly to include (1) blended, not neat renewable fuel; (2) the various parties, including the ultimate consumer, that would use blended renewable

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[28] *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 842-43 (1984).
[29] *Arizona Public Service Co. v. Environmental Protection Agency*, 211 F.3d 1280, 1287 (D.C. Cir. 2000).
[30] *See Whitman v. American Trucking Associations*, 531 U.S. 457 (2001) (holding that EPA may not consider compliance costs under one provision of the Clean Air Act where other provisions of the Act explicitly stated them as permissible considerations).
[31] *Chevron,* at 843.

fuels; and, (3) consideration of factors relevant in determining the adequacy of the supply, including "consideration of distribution capacity."[32] Respectfully, we believe EPA is wrong on all three of these points, and is ignoring the clear meaning of "inadequate domestic supply" as solely referring to the supply of neat renewable fuel available to obligated parties, without consideration of additional factors such as distribution capacity.

EPA asserts in its proposed rule that it "has not previously interpreted or applied the waiver provision in CAA section 211(o)(7)(A)(ii) related to 'inadequate domestic supply.'"[33] This assertion fails to provide the full picture of the Agency's history in approaching its waiver authority under the RFS. For instance, the Agency, in its 2008 decision "Regarding the State of Texas Request for a Waiver of a Portion of the Renewable Fuel Standard" (the "Texas Waiver Decision"), made it clear that, although it was not specifically interpreting the inadequate domestic supply portion of the waiver provision in CAA section 211(o)(7)(A)( (the general waiver authority provision), "the guidance discussed in [the Texas Waiver Decision] would apply in general terms to those requests as w ell"[34] – meaning, all requests to "grant a waiver based on severe harm to the environment of a State, a region, or the United States, or *inadequate domestic supply*"[35] (emphasis added).

Under this guidance, which was reaffirmed in EPA's August 2012 "Notice of Decision Regarding Requests for a Waiver of the Renewable Fuel Standard"[36] (the "2012 RFS Waiver Decision"), EPA found that Congress intended its general waiver authority to be interpreted narrowly based on the plain meaning of the text on its face without reading into it or enhancing it based on additional language or words used in other parts of the CAA, including other parts of the RFS.[37] It emphasized the fact that Congress intended for the RFS to increase renewable fuel volumes and, as such, the Agency must interpret its authority to require a high bar before waiving any required RFS volumes.[38] Accordingly, EPA rejected Texas' assertion that the Agency should reduce RFS volumes if it found that the RFS *contributed to* severe economic harm. Instead, based on the plain meaning of the text, EPA found that it would need to find that "implementation of the RFS program *itself* must be the cause of the severe harm."[39]

In explaining this conclusion, EPA noted that it had considered "numerous examples in section 211 and other sections of the Clean Air Act where Congress authorized EPA action based on the contribution made by a factor or activity and worded the statute to clearly

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[32] *See The 2014 RFS Proposed Rule* at 71755-56 (explaining the ways in which EPA views the term "inadequate domestic supply" contained in CAA Section 211(o)(7)(A)(ii) as sufficiently ambiguous to interpret its authority broadly under that provision).
[33] *Id*. at 71755.
[34] Environmental Protection Agency, *Notice of Decision Regarding the State of Texas Request for a Waiver of a Portion of the Renewable Fuel Standard*, 73 Fed. Reg. 47168, 47184 (published Aug. 13, 2008) [hereinafter *The 2008 Waiver Decision*].
[35] 42 U.S.C. 7545 211(o)(7)(A)(i) and (ii).
[36] Environmental Protection Agency, Notice of Decision Regarding Requests for a Waiver of the Renewable Fuel Standard, 77 Fed. Reg. 70752, 70755 (published Nov. 27, 2012) [hereinafter *The 2012 RFS Waiver Decision*].
[37] *See The 2008 Waiver Decision* at 47171 (refusing to interpret its general waiver authority under CAA Section 211(o)(7)(A)(i) to include consideration of instances when the RFS would "contribute to" severe economic harm and finding clear Congressional intent that EPA not use such consideration where it had omitted the phrase in that section of the Clean Air Act while including it in others).
[38] *Id*.
[39] *Id*.

indicate this intention."[40] The Agency concluded that "Congress did not use such language in this [general] waiver provision, and *the omission of any reference to contribution or similar terms in section 211(o)(7)(A) indicates Congressional intent to limit the availability of a waiver to situations where implementation of the RFS program itself would severely harm the economy*"[41] (emphasis added).

Following its own guidance on reasonable interpretation of the general waiver authority, EPA should, as an initial matter, easily conclude based on the plain text of the statute that the term "supply" refers to neat renewable fuel products only. In its proposed rule, however, EPA argues that the "inadequate domestic supply" term "does not specify what product is at issue (for example, neat renewable fuel or blended renewable fuel with transportation fuel)," and for that reason EPA is entitled to read it broadly to refer to blended renewable fuel with transportation fuel.[42] This reading is inconsistent with EPA's guidance to interpret its authority under the general waiver provision narrowly based on the plain text of the provision.

Taking the text of the provision on its face, it is very clear that the term "supply" in CAA Section 211(o)(7)(A)(ii) refers back to the language of CAA Section 211(o)(7)(A), "the national quantity of renewable fuel required under paragraph (2)." The "national quantity of renewable fuel required under paragraph (2)" clearly references the volumes of renewable fuels contained in CAA Section 211(o)(2)(B). CAA Section 211(o)(1)(J) defines the term "renewable fuel" to mean "fuel that is produced from renewable biomass and that is used to replace or reduce the quantity of fossil fuel present in a transportation fuel." The word "supply" in the phrase "inadequate domestic supply" contained in Section 211(o)(7)(A)(ii) of the general waiver provision clearly refers back to the volumes of renewable fuels contained in CAA Section 211(o)(2)(B), which as defined by CAA Section 211(o)(1)(J) mean volumes of neat, not blended, renewable fuels. In other words, it means the renewable fuels before they are blended with transportation fuel.

This interpretation of the term "supply" to mean neat renewable fuel also is consistent with EPA's guidance on the meaning of "inadequate domestic supply" found in its March 2010 final RFS rule. In relevant part, EPA wrote in that rule that "[w]e also note that it is ultimately *the availability of qualifying renewable fuel, as determined in part by the number of RINs in the marketplace, that will determine the extent to which EPA should issue a waiver of RFS requirements on the basis of inadequate domestic supply*. It is in the interest of renewable fuel producers to avoid a situation where a waiver of the EISA volume requirements appears necessary. *EPA encourages renewable fuel producers to generate RINs for all fuel that is made from feedstocks meeting the definition of renewable biomass and that meets the GHG emissions reduction thresholds set out in EISA*"[43] (emphasis added).

Second, following its own guidance, EPA should determine that "inadequate domestic supply" refers to the adequacy of the supply of neat renewable fuel *to obligated parties*, not "ultimate consumers." Based on Congressional direction, EPA has designated the parties

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[40] *Id.*
[41] *Id.* at 47171.
[42] *See The 2014 RFS Proposed Rule* at 71756.
[43] Environmental Protection Agency, Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program; Final Rule, 75 Fed. Reg. 14670, 14698 (2010) (codified at 40 C.F.R. pt. 80) (published March 26, 2010) [hereinafter *The RFSII Final Rule*].

obligated to meet the annual RVOs, [44] and thus EPA should conclude that the provision only applies to those obligated parties – and not "all of the relevant parties," including the "ultimate consumer," as it now proposes.[45] Congress designed the RFS to increase the development and commercial production and use of renewable fuels,[46] and directed the Agency to obligate certain parties to use the renewable fuels in order to incentivize this production, for ultimate use by the consumer. Those obligated parties are narrowly drawn and plainly do not include the ultimate consumer.[47] Instead, under the RFS, Congress intended for obligated parties, including refiners and importers of transportation fuel, to be the ones required to use/blend the neat transportation fuel volumes set in the law for ultimate use by consumers. Therefore, EPA should conclude that the adequacy of the supply of neat renewable fuels must be measured in terms of the adequacy of volumes of those fuels to the parties who are obligated under the law to comply with these requirements. Under its 2008 Texas Waiver Decision precedent, EPA should not read the text more broadly to include the ultimate consumer.

Doing so would create an impermissible "asymmetry of incentives" under which EPA would, practically speaking, be imposing obligations on renewable fuels producers and the ultimate consumer that Congress never intended. To date, the only obligation for renewable fuel producers under the RFS has been to produce qualifying renewable fuels. Until now, if they accomplished that task, they knew there would be a market for the biofuels because of the requirement for *obligated parties* (refiners and importers of transportation fuel) to use or blend them.[48] Under the proposed rule, the obligation for renewable fuel producers would now extend, in practical terms, to helping to ensure the use of their fuels by the ultimate consumer. No longer would the obligation to use the renewable fuels lie solely with the obligated parties defined under the statute. This is not the type of broad obligation Congress intended when it directed the Agency to define certain obligated parties, which did not include renewable fuel producers or the ultimate consumer.

A federal court just last year found EPA had created an impermissible "asymmetry in incentives" because the obligated parties would be the ones left to pay for any disconnect between the 2012 cellulosic RVOs set by EPA and the actual expected production volume of those fuels, when it was the renewable fuel producers, and not the obligated parties, that had control over whether or not the requisite cellulosic volumes were actually produced.[49] Just as the court found that the refining sector had no control over whether renewable fuels producers actually produced the requisite volumes of fuels, renewable fuel producers have no control over whether those fuels are blended and consumed by the ultimate consumer. As a result, an interpretation of "inadequate domestic supply" that focuses on supply to

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[44] *The RFSII Final Rule* at 14721-22.
[45] *See The 2014 RFS Proposed Rule* at 71756.
[46] *See The 2014 RFS Proposed Rule* at 71734 (explaining that EPA has been "cognizant that Congress anticipated and intended the RFS program to promote substantial, sustained growth in biofuel production and consumption—beyond the levels that have been achieved to date").
[47] *The RFSII Final Rule* at 14721-22.
[48] See Biotechnology Industry Organization, *The Value Proposition for Cellulosic and Advanced Biofuels Under the Federal Renewable Fuel Standard*, (2001), available at http://www.bio.org/sites/default/files/201104_rfs_whitepaper_3.pdf (finding that the RFS statute and EPA's consistent implementation of it provides biofuel producers with the confidence that there will be a market for all qualifying biofuels they can produce). (Appendix XV)
[49] *American Petroleum Institute v. Environmental Protection Agency*, No. 12-1139 at 12 (D.C. Cir. filed Jan. 25, 2013) [hereinafter *API v. EPA*].

consumers would create an inappropriate obligation on renewable fuel producers and consumers under the RFS, as well as a perverse incentive for the Congressionally-obligated parties to continue to drag their collective feet in developing the infrastructure needed for consumers to be adequately supplied with renewable fuels.

Third, following its own guidance, EPA should determine that its authority under the "inadequate domestic supply" part of the general waiver authority provision cannot be supplemented by additional text found in other parts of the CAA, such as "consideration of distribution capacity," "consumption by the ultimate consumer," or the "blend wall."[50] CAA Section 211(o)(7)(a)(ii) allows the EPA Administrator to reduce RFS volumes based on "inadequate domestic supply." As explained above, the straightforward meaning of this provision would allow the Administrator to reduce the statutory RFS volume requirements if she determines an inadequate supply of neat renewable fuel available to obligated parties. EPA's 2008 Texas Waiver Decision precedent cautions against using unrelated text to read into this clear waiver authority. Just as EPA determined that Congress' omission of any reference to the RFS "contributing to" severe economic harm prevented a broad interpretation of that prong of the general waiver authority, EPA should, for the 2014 RFS rule, similarly find that Congress' omission of any reference to "consumption," "distribution capacity" or "blend wall" under the "inadequate domestic supply" prong of that same authority limits its legal authority in this regard. Indeed, as EPA acknowledges in the proposed rule, in other parts of the CAA, Congress explicitly specifies that the Administrator may consider distribution capacity in determining whether to waive fuel volumes.[51] The fact that Congress did not do so with respect to the RFS waiver authority at issue here is telling, and undermines – rather than supports – any EPA reliance on such other considerations.

In sum, <u>EPA's broad interpretation of its waiver authority in the proposed rule under CAA Section 211(o)(7)(A)(ii) is wholly inconsistent with its narrow interpretation of the same authority under Section 211(o)(7)(A)(i)</u>.

***b. Even if EPA's Interpretations of Its General Waiver Authority Are Reasonable, It Should Determine that Waiving Volumes of Total Renewable Fuel Is Inappropriate Because Any Inability to Consume Blended Renewable Fuels Is Not due to EPA Implementation of the RFS Itself but Rather the Ongoing Defiance of the Law by Obligated Parties and Other Stakeholders***

As discussed in detail above, BIO strongly believes EPA should follow its past guidance on interpreting potential waivers of statutory RFS RVOs under its general waiver authority narrowly and based on the straightforward meaning of the text. However, even if EPA continues to interpret its authority broadly under CAA Section 211(o)(7)(A)(ii) to include the availability of renewable fuels blended into the transportation fuel supply and the ability of the ultimate consumer to consume them, we believe EPA should determine that it is still inappropriate for it to reduce the 2014 RFS RVOs for total renewable fuels under its general waiver authority because any inadequate supply based on that definition would not result from EPA's implementation of the RFS *itself*. Rather, as EPA suggested in its 2012 RFS Waiver Decision, <u>such inadequate supply would be due to the ongoing defiance</u>

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[50] *See The 2014 RFS Proposed Rule* at 71755-56.
[51] *See The 2014 RFS Proposed Rule* at 71756.

of obligated parties and other stakeholders to take the reasonable and necessary steps to comply with the law.

In the 2012 RFS Waiver Decision, EPA provided analysis and guidance on the "Ethanol Blend Wall." It explained that during the comment period leading up to the 2012 RFS Waiver Decision, "[c]ommenters state that once ethanol in gasoline hits this E10 saturation point, blending additional ethanol into gasoline will not be a viable strategy to comply with RFS-required volumes."[52] EPA responded that:

> Ethanol has been the dominant domestic renewable fuel for several years, and during development of the law and regulations stakeholders in the fuel sector reasonably expected that ethanol would play a significant role in fulfilling the RFS volume requirements. As pointed out by commenters, E10 is approaching the point at which it saturates the gasoline market. As a result, *if obligated parties choose to achieve their required RFS volumes using ethanol they should work with their partners in the vehicle and fuel market to overcome any market limitations on increasing the volume of ethanol that is used. Stakeholders in the refining sector have been aware of the E10 blend wall since passage of EISA in December of 2007.*
>
> As the market has approached the E10 blend wall, the ethanol industry has worked to support the introduction of E15 into the market, and domestic auto manufacturers have increased production of vehicles capable of running on even higher ethanol blends. Over ten million flex-fuel vehicles (FFVs) are now in the existing fleet. FFVs currently consume E85 only about 0.4% of the time, but were they to be regularly fueled on E85, such vehicles would be capable of consuming billions of additional gallons of ethanol. *The affected industries have had and continue to have the ability to achieve widespread adoption of E85 through working with partners in the retail and terminal infrastructure sectors to increase the number of stations that offer E85 or other intermediate ethanol blends and improve the pricing structure relative to E10. As noted above, however, other fuel options are available to meet RFS requirements*.[53]
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> (Emphases added.)

As EPA recognized in the 2012 RFS Waiver Decision, the biofuels industry has done its job to support widespread adoption of higher blends of ethanol. The remaining responsibility to help achieve widespread adoption of those fuels has lied with obligated parties and their partners. In the Agency's own words, they "have had and continue to have the ability to achieve widespread adoption of E85" and higher blends of ethanol. If

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[52] *The 2012 RFS Waiver Decision* at 70772.
[53] *Id*. at 70773.

they had been responsibly planning to comply with their RFS RVO requirements, they would have been taking the necessary steps to do this since passage of EISA in 2007. It is now 2014. The fact is that most obligated parties and other impacted stakeholders have not taken the steps necessary for widespread adoption of higher blends of ethanol. These steps would have made reducing statutory RFS volumes due to E10 blend wall concerns, as the Agency now proposes, unnecessary.

In accordance with its past guidance, EPA should therefore find that waiving volumes of total renewable fuel under its general waiver authority is inappropriate because any "inadequate domestic supply" of that fuel as defined under the proposed rule is not the result of EPA's continued implementation of the RFS *itself*. Rather, the root cause is due to the ongoing defiance by "stakeholders in the refining sector" and "affected industries" who have—despite being aware of the E10 blend wall and their RFS obligations since 2007—actively chosen not to "work with their partners in the vehicle and fuel market to overcome any market limitations on increasing the volume of ethanol that is used," or with their "partners in the retail and terminal infrastructure sectors to increase the number of stations that offer E85 or other intermediate ethanol blends and improve the pricing structure relative to E10."[54]

**c. EPA's Proposal Lacks A Sufficient Legal Basis to Make Reductions to Advanced and Total Renewable Fuel Volume Obligations Using its Cellulosic Waiver Authority Under the RFS**

EPA lacks the authority under the cellulosic waiver authority provision found in CAA Section 211(o)(2)(B)(i)(III) to make its proposed reductions to the 2014 RFS RVOs for advanced and total renewable fuels for the reasons cited in its proposal. In the proposed rule, EPA asserts that, while "[t]he statute does not provide any explicit criteria that must be met or factors that must be considered when making a determination as to whether and to what degree to reduce the advanced biofuel and total renewable fuel applicable volumes...EPA must provide a reasoned explanation for any decision to reduce [those] volume requirements under the cellulosic biofuel waiver authority."[55]

EPA cites similar concerns for its "reasoned explanation" to reduce the advanced and total renewable volumes under its cellulosic waiver authority as it does for its proposed further reductions to the total renewable fuel volumes under its general waiver authority: lack of adequate supply of advanced and total renewable fuels determined based on "limitations in the volume of ethanol that can be practically consumed in motor vehicles considering constraints on the supply of higher ethanol blends to the vehicles that can use them and other limits on ethanol blend levels approved for use in motor vehicles and the volume of non-ethanol renewable fuels that we expect would be reasonably achievable."[56]

Although, as EPA suggests, its cellulosic waiver authority appears to provide the agency with greater discretion than under its general waiver authority, EPA does still need to "provide a reasoned explanation." We believe there are limits to this "reasoned

[54] *See Id.*
[55] *The 2014 RFS Proposed Rule* at 71755.
[56] *Id.* at 71754.

explanation," which demand that the Agency not only provide a well-reasoned explanation, but one that comports with EPA's past practice, interpretation and application, as well as rulings from the courts. EPA's "reasoned explanation" in this case fails to follow EPA's own precedent—and a recent court ruling upholding such past practice—of refusing to alter the statutory levels of advanced and total renewable fuels when the Agency determined there would be sufficient expected production volumes of those fuels that could be available to obligated parties. Because of this precedent and the fact that, as demonstrated in other parts of these comments, there will indeed be sufficient supply of neat advanced and total renewable fuel to obligated parties in 2014, EPA lacks a sufficient legal basis to make its proposed reductions to those statutory RVOs under its cellulosic waiver authority.

### *d. EPA's Precedent Supports Maintaining the 2014 RFS RVOs for Total Renewable and Advanced Biofuels*

Until now, EPA has interpreted its authority to reduce volumes of advanced and total renewable biofuel RVOs under its cellulosic waiver authority by focusing on the Agency's ability under the law to maintain the RFS statutory RVOs for those fuels in spite of any annual reductions to the cellulosic biofuel RVOs, based on the likely availability of neat advanced and total renewable fuels to obligated parties. For instance, recently EPA opted to maintain the 2012 and 2013 RVOs for advanced and total renewable fuels because it determined that there would be sufficient production volumes of qualifying advanced biofuels in those years to make up the reduced amounts of cellulosic biofuels in the same years.[57] It placed a premium on following Congressional intent to implement the RFS in a way that results in the increased production and use of renewable fuels as provided under the law.[58] In other words, although the cellulosic waiver authority provision may require only a "reasoned explanation" for any reductions to advanced and total renewable RVOs pursuant to it, EPA has thus far interpreted its authority under the provision narrowly in such a way to avoid reducing those RVOs given their expected production volumes.

The only difference this year, it appears, is that we are approaching the E10 "blend wall" because obligated parties and other stakeholders have not taken the steps necessary – and which, as EPA pointed out in its 2012 RFS Waiver Decision, they have known to be necessary to comply with their RFS obligations since its passage in 2007—to overcome such limitations. This blend wall factor – which is foreign to the plain language of the RFS statute and thus its consideration is inconsistent with Congressional intent – does not and should not meet the requirements of a "reasoned explanation" justifying any reductions to the advanced and total renewable RVOs.

Since EPA has failed to provide a sufficient "reasoned explanation" for its change in Agency implementation of the statute, and since, as shown throughout these comments,

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[57] See Environmental Protection Agency, *Regulation of Fuels and Fuel Additives: 2012 Renewable Fuel Standards; Final Rule*, 77 Fed. Reg. 1320, 1331-32 (2012) (codified at 40 C.F.R. pt. 80) (published Jan. 9, 2012) [hereinafter *The 2012 RFS Final Rule*]; see also, Environmental Protection Agency, *Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards; Final Rule*, 78 Fed. Reg. 49794, 49824 (2013) (codified at 40 C.F.R. pt. 80) (published Aug. 15, 2013).

[58] *The 2012 RFS Final Rule* at 1331 ("[EPA] believe[s] that it would not be consistent with the energy security and greenhouse gas reduction goals of the [RFS] statute to reduce the applicable volumes of advanced biofuels set forth in the statute if there are sufficient volumes of advanced biofuels available, even if those volumes do not include the amount of cellulosic biofuel that Congress may have desired").

there likely will be adequate volumes of neat advanced and total renewable fuels to meet the 2014 RFS RVOs, EPA lacks sufficient legal authority under its cellulosic waiver authority provision to make its proposed reductions to those 2014 RVOs.

**e. A Recent Court Ruling Has Upheld EPA's Interpretation of Its Cellulosic Waiver Authority to Allow the Agency to Maintain Total Renewable and Advanced RVOs in Spite of Reducing Cellulosic RVOs, When It Determines Adequate Neat Volumes of the Renewable Fuels Will Be Available to Obligated Parties**

Because the cellulosic waiver authority does not specifically address the scope of agency authority, courts will likely look to the text, structure and purpose of the RFS to determine whether EPA's interpretation of its authority is based on a permissible construction of the statute. The United States Court of Appeals for the District of Columbia Circuit completed this very analysis last year in *API v. EPA,* finding that (1) EPA was correct that Congress intended that the RFS promote production of renewable fuels; and (2) EPA's interpretation that it has the authority to maintain the advanced and total renewable RVOs in spite of any reductions to the cellulosic biofuel RVOs under its cellulosic waiver authority was reasonable, provided that the Agency determines there will be sufficient expected *production volumes* of those fuels.[59]

The court was not persuaded by API's argument that EPA had failed to justify its decision to maintain the 2012 RVOs for advanced and total renewable fuels when it had reduced the 2012 RVOs for cellulosic biofuels under its cellulosic waiver authority.[60] The court held that the fact that EPA determined that "other sources of advanced biofuels…could make up for the 490 million gallon shortfall in cellulosic biofuel," without providing specific anticipated amounts of those fuels, was a sufficient reasoned explanation for its decision under the cellulosic waiver authority.[61] The court found that EPA's use of historical projected volume production data adequately supported its decision not to reduce the 2012 advanced or total renewable RVOs. In fact, the court held that the Agency did not even need exact quantitative production volume predictions to maintain those RVOs under its cellulosic waiver authority.[62] EPA's determination of the adequacy of the expected production volumes of neat advanced and total renewable fuels available to obligated parties was not only the basis for EPA's "reasoned explanation" not to reduce those 2012 RVOs under its cellulosic waiver authority, but it also was the focus of the court's analysis when holding that "reasoned explanation" to be sufficient under the same authority.

Similarly, even where the court rejected the Agency's arguments, it did so based on a reading of the statute focused on expected production volumes, not other factors. After evaluating the intent and structure of the RFS, the court held that EPA exceeded the scope of its cellulosic waiver authority when it failed to reduce the 2012 RFS cellulosic biofuel RVOs down to the level of actual expected production.[63] EPA had instead used its cellulosic

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[59] *API v. EPA*, No. 12-1139 at 9 and 14 (D.C. Cir. filed Jan. 25, 2013).
[60] *See id*. at 4 and 13.
[61] *Id*. at 14.
[62] *Id*.
[63] *See id*. at 11.

waiver authority to reduce the 2012 RFS cellulosic RVOs to the maximum potential production in order to drive investment and production of cellulosic biofuels. The court found that the text and general structure of the RFS failed to support EPA's interpretation of its authority under the cellulosic waiver provision in a way that would enable the Agency to project cellulosic production volumes by "deliberately indulging a greater risk of overshooting than undershooting" in order to force the development and production of cellulosic biofuel technology.[64] In other words, under its cellulosic waiver authority, the court found that EPA must "take a neutral aim for accuracy" when setting the annual RFS RVOs.[65]

Thus, just as the court held that the RFS and the text of its cellulosic waiver authority provision failed to permit the EPA to overshoot its projections to achieve a policy objective – even one the court acknowledged was supported by Congressional intent – we believe a court would likewise hold that the Agency may not use the same waiver authority to deliberately "undershoot" its projections, as the Agency now proposes, in order to address E10 blend wall concerns. As explained above, we believe that a court would find that Congress' omission of language that would allow EPA to waive RFS volumes based on considerations such as the E10 blend wall, distribution capacity, and the ability of the ultimate consumer to consume them restricts the Agency from doing so.

Given that we demonstrate in other sections of these comments that there will be adequate expected production of advanced and total renewable biofuel volumes to meet those 2014 RVOs, EPA should maintain them in its final 2014 RFS rule consistent with its historical interpretation and application of its cellulosic waiver authority, as recently interpreted by the federal appeals court.

## IV. There are Sufficient Supply Options in 2014 to Meet Statutory Advanced and Overall Targets

The domestic supply of biofuels will be adequate to meet the overall statutory volume of 18.15 billion gallons of renewable fuel, including 3.75 billion gallons of advanced biofuel, in 2014. There are several potential scenarios for producing and using these volumes, with flexibility in the system provided by carryover RINs from 2013 and additional capacity under construction or available for import. EPA should not limit the evaluation of the availability of advanced biofuel volumes to non-ethanol fuels, as it proposes. EPA's ongoing delays in approving advanced and cellulosic biofuel pathways hinder the biofuels industry's ability to generate sufficient RINs to meet the statutory targets.

### a. EPA should consider all reasonably anticipated supply of cellulosic biofuel in setting RVO

In setting the cellulosic RVO, EPA each year conducts a careful survey of the production intentions of commercial-scale cellulosic biofuel producers in the United States. EPA's neutral methodology based on these direct discussions with producers generates the best available projection of what will actually happen in the market during the coming year. EPA should continue to hold discussions with the identified producers to update these

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[64] *Id.*
[65] *Id.*

projections; additionally, EPA should hold discussions with identified foreign cellulosic biofuel producers and with producers awaiting pathway approvals to assess their intentions and include them as appropriate in setting the cellulosic requirement.

If it uses a Monte Carlo analysis, EPA should not use "distribution curves weighted towards the low end of the expected production range for each company to account for the fact that previous projections of cellulosic biofuel production have exceeded actual production."[66] EPA should make every part of its methodology as neutral as possible. EPA's methodologies for setting the annual cellulosic and advanced RVOs were upheld by the Court when challenged in API v EPA, with the exception of adopting a new goal of promoting growth in the industry.[67] Changes to the methodology risk the agency putting its thumb on the scale to *inhibit* growth of the cellulosic biofuel industry.

EPA has excluded from its 2014 projection all foreign producers of cellulosic biofuel, even though it has identified four facilities that are complete or will be complete during 2014 and that have approved pathways for generating RINs. EPA should work with these companies to complete the registration process for the facilities in an expedient manner, enabling them to contribute volumes to meet the 2014 Renewable Volume Obligations (RVOs). EPA's exclusion of the facilities from the 2014 RVOs discourages these companies from both completing the registration process and exporting volumes to the U.S. fuel market. The lower RVOs thus become a self-fulfilling prophecy. EPA should include these companies in the same neutral methodology it uses for projecting domestic commercial production.

EPA has also excluded volumes of cellulosic biofuels from pathways that have yet to be approved. This exclusion could chill investment for the identified companies and discourage these companies – and others – from completing the lengthy approval process for pathways and renewable fuel producers. For example, the National Waste & Recycling Association and the Solid Waste Association of North America contend if proposed changes to RFS pathways occur to allow landfill gas dedicated to transportation fuel to qualify as a cellulosic biofuel, there will be substantially greater volume of Cellulosic Biofuel available than is currently proposed.[68] EPA should anticipate the timely approval of pathways and registration processes and include in the 2014 RVO all possible volumes from companies that intend to begin producing during the year.

**b. Ongoing pathway approval delays have reached an average of two years**

EPA has received 56 petitions for new pathway approvals since April 2010. To date, EPA has addressed 24 of the petitions, denying only two of them. Fifteen petitions received

[66] Fed. Reg., 78(230), Fri. Nov. 29, 2013. P.71750.
[67] USCA, No. 12-1139, Jan. 25, 2013.
[68] Kneiss, S and Skinner, J. National Waste & Recycling Association and Solid Waste Association Comments on Docket ID No. EPA-HQ-OAR-2013-0479. Submitted Jan. 28, 2014 (Appendix LXV)

approval during 2013.[69] Thirty-four petitions are still awaiting completion – either approval or denial – and the average time that those companies have waited now exceeds 19 months.

Companies filing cellulosic biofuel pathway petitions have faced the longest wait times for resolution. Among the six that have been approved, the average wait time was 760 days (more than two years). At least two companies (BP Biofuels and Terrabon, Inc.) discontinued plans for commercial cellulosic projects while awaiting approval. The seven cellulosic companies still awaiting a decision have been waiting an average of 715 days.

Advanced biofuel companies have faced similar delays on pathway petitions. Companies still awaiting a resolution on their petitions have had an average wait of nearly 600 days. Those that have received approval waited, on average, more than 400 days.

For companies awaiting a decision on conventional biofuel pathway petitions, the average wait has been more than 275 days. The average waiting period has dropped from 400 days in the last two months as EPA has received and rapidly approved petitions from biorefineries that are no longer eligible for grandfathering but nevertheless utilize an approved pathway that guarantees a 20 percent reduction in greenhouse gases compared to gasoline's 2007 baseline.

The lengthy wait for approval of new pathways discourages investment in commercial development of advanced and cellulosic biofuels as well as in improvements to existing or development of new pathways for conventional biofuel production. Without a pathway to the fuel market, companies find it difficult to attract investment necessary to complete the construction and startup of new facilities. EPA should work with these companies to expedite the pathway approval process in order to increase the available supply of fuels to meet the RVOs. While setting the 2014 RVOs, EPA should include volumes from companies that can reasonably be expected to receive pathway approval and begin production during 2014. EPA's delay in approving the pathway should not be a reason to exclude a company from EPA's projection for the RVO.

### c. Advanced biofuel supply capacity

During the first 11 months of 2013, advanced biofuel producers generated 1.78 billion gallons of biomass-based diesel (BBD[70] Qualifying BBD can generate between 1.5 and 1.7 RINs per gallon, based on ethanol-equivalent energy content. Given the distribution of BBD gallons produced in 2013 among the various ethanol equivalence values (which results in a multiplier of 1.523), and the total number of associated RINs generated, the industry has made available more than 2.7 billion D4 RINs in 2013.

Advanced biofuel producers have contributed an additional 41.6 million gallons of renewable diesel, qualifying as advanced biofuel, generating more than 70 million advanced biofuel (D5) RINs, through November. The total pool of advanced biofuel (D5) RINs available for 2013 is close to 551 million, with nearly 122 million RINs generated

[69] Fuel Pathway Petitions: Approved Fuels & Feedstocks, http://www.epa.gov/otaq/fuels/renewablefuels/new-pathways/rfs2-pathways-determinations.htm (Appendix XVI)
[70] Fuels and Fuel Additives 2013 EMTS Data, http://www.epa.gov/otaq/fuels/rfsdata/2013emts.htm. (Appendix XVII)

domestically. The biofuel industry has made available more than adequate supply to meet the 2013 statutory volume of 2.75 billion gallons of advanced biofuels, and has generated excess RINs that can be applied to 2014.

The availability of carryover RINs provides a significant measure of flexibility in the event of a shortfall in biofuel production or in an individual obligated party's compliance. A recent analysis that attempts to gauge whether sufficient RINs will exist in 2014 for compliance with the statutory RVOs errs in assuming that production will not respond to RIN prices. It also assumes a flat monthly obligation, when in fact the implied obligation changes from month to month as non-renewable fuel production changes.[71]

There appears to be nearly 470 million D4 and D5 2012 vintage RINs available to obligated parties to meet the 2013 RVOs.[72] If these RINs are retired to meet the 2013 obligations, consistent with industry practice in previous years, there could be more than 970 million advanced (D5) and BBD (D4) 2013 vintage RINs available to obligated parties to roll over for compliance in 2014. If EPA sets the final 2014 advanced biofuel obligation at the level of 2.2 billion gallons as proposed, the maximum number of 2013 vintage RINs obligated parties could apply to it would be 440 million, leaving nearly 55 percent of the total available RINs to expire unused. This could rob the system of flexibility for obligated parties in 2014 as well as in 2015, if the obligation were raised in 2015 closer to the statutory volumes.

The Energy Information Administration estimates that the operating capacity for the biodiesel industry is 2.1 billion gallons, which would generate more than 3.2 billion RINs.[73] EPA notes in the proposed rule that the nameplate capacity of all registered biodiesel producers who produced some volumes in 2012 is 2.4 billion gallons, which would generate more than 3.6 billion RINs.[74] Additional advanced biofuel production capacity is expected to come online during 2014, though it is dependent on the timeliness of EPA's approval of pathway petitions, as EPA notes in the proposed rule. EPA's proposal to maintain the 2014 and 2015 BBD obligation at 1.28 billion gallons, while simultaneously lowering the advanced biofuel obligation, subverts the stated goal of supporting growth in biofuels over time.

With more than 550 million advanced (D5) RINs in 2013, and in combination with BBD, the industry has demonstrated that it can generate the 3.75 billion advanced RINs specified for 2014 in the statute, with additional RINs to provide flexibility in the overall RVO and rollover RINs for 2015. EPA should follow past practice – as supported by the USCA decision in January 2013 – to set the overall advanced RVO at the maximum achievable volume. The demonstrated existence of rollover RINs from 2013 can provide sufficient flexibility to obligated parties to meet the statutory RVO.

Conversely, EPA's proposal to reduce the 2014 advanced RVO to 2.2 billion would discourage advanced biofuel producers from completing and registering new facilities,

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[71] Paulson, N. and Meyer, S. "RIN Update: Estimating Potential Stocks for 2014." FarmdocDaily, Sept. 26, 2013. http://farmdocdaily.illinois.edu/2013/09/rin-update-estimating-potential-stocks-2014.html (Appendix XVIII)
[72] Fuels and Fuel Additives 2012 EMTS data, http://www.epa.gov/otaq/fuels/rfsdata/2012emts.htm. (Appendix XVII)
[73] http://www.eia.gov/biofuels/biodiesel/production/. (Appendix XIX)
[74] Fed. Reg., 78(230), Fri. Nov. 29, 2013. P.71762.

resulting in stagnant production capacity for the biofuel industry. The proposed volume obligation falls below the demonstrated RIN generation for BBD (D4) in 2013 of 2.7 billion, which would continue to dampen the use of existing production capacity for biodiesel and renewable diesel. Such a tightening of the market would discourage any new investments in advanced biofuels and undermine planned future growth in domestic production capacity.

## V. EPA has erred in its assumptions that the cost of RINs is unduly burdensome to obligated parties and that the cost is passed through to consumers.

Renewable Identification Numbers (RINs) are used in the RFS program in the same way as tradable compliance credits in other Clean Air Act programs. They should be a familiar tool to all participants in the program. Like other compliance credits, RINs enforce the central Clean Air Act principle that polluters pay for environmental remediation, even while allowing the costs to be balanced across the polluting industry through trading. The rise in RIN prices during the first half of 2013 came about in part because some obligated parties adopted ineffective strategies for meeting the RFS requirements, relying on other parties to bear the primary burden of compliance. Increased RIN prices do signal the market to increase production and use of biofuels and find efficient ways to solve the so-called blend wall. Increased transparency in the market would allow that mechanism to work more efficiently.

Because RINs enforce the "polluters pay" principle, these compliance costs have not been passed to consumers at the pump as confirmed by readily available data. Competitive pressure among obligated parties prevents any one party from passing the costs to consumers, particularly when RIN prices are high and competitive positions are at greatest variance. Further, biofuels can provide a price benefit to consumers.

### a. If obligated parties utilized renewable fuels in sufficient amounts, the cost of RINs would approach zero

RIN prices are determined by supply and demand. Demand for RINs is determined by the RFS obligations. The supply of RINs is determined by the amount of qualifying renewable fuel used within the United States (either as a blend with petroleum or as a neat fuel).[75]

From 2010 (the start of the RFS2 program) to early 2013, the price of D6 RINs was very low, due to oversupply. According to a model proposed by Scott Irwin at the University of Illinois, the price of RINs would approach zero if the amount of biofuel *used* within the United States matched or exceeded the RFS obligations.[76] Irwin's model does not account for the cost or opportunity costs incurred by obligated parties who blend beyond their RVO and then transfer the RINs to other parties – particularly parties that do not use biofuels themselves.

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[75] Babcock, B. and Pouliot, S. The Economic Role of RIN Prices. Ames, Iowa: Center for Agricultural and Rural Development, Nov. 2013. 13-PB 14.

[76] Irwin, S. "More on Ethanol RINs Pricing" FarmdocDaily, October 31, 2013. http://farmdocdaily.illinois.edu/2013/10/more-on-ethanol-rins-pricing.html. (Appendix XX) (emphasis added)

The price of RINs also contains an opportunity cost and a projection of future demand. The steep rise in D6 RIN prices that began in February 2013 reflected the perception among some obligated parties that demand for this category of RINs would outstrip the supply within the foreseeable future, as the conventional RVO exceeded the ability of retailers to sell E10 within the U.S. market.[77] RIN prices rose to reflect either the costs obligated parties faced in marketing additional ethanol volumes as E15 or E85 blends[78] or the cost of alternative compliance options, such as increased use of BBD or commercial development of advanced biofuels. But the rise in D6 RIN prices also pushed the prices of D4 and D5 RINs higher, reflecting the opportunity costs for some obligated parties in obtaining their entire RVO through transferred credits, without any blending themselves. The steep decline in all RIN prices beginning in August reflected a prediction by obligated parties that EPA would reduce the RFS obligations for 2014.[79]

The Oil Price Information Service, in its daily "End of Day Ethanol Assessment Report" email, provides pricing for 2014 RINs that have yet to be generated but are secured by obligated parties through buy/sell agreements. The 2014 vintage D4 and D5 RINs consistently are higher-priced than 2013 and 2012 vintage RINs, which are valid for 2013. This trading confirms the expectation of future demand embedded in RIN prices. Current prices reflect lower future demand but remaining opportunity costs.

Delta Airlines, owner of Monroe Energy, which operates a refinery in Trainer, Pennsylvania, notes that the RIN price fluctuations occurred because owners of RINs withheld them from trading:

> "Because the refinery operated by Monroe does not blend renewable fuels, it must purchase its entire RINs requirement in the secondary market or obtain a waiver from the EPA…. We believe that holders of RINs are withholding them from the secondary market as a consequence of these requirements, which have been increasing annually. This reduction of available RINs significantly impairs the secondary market as a means of compliance."[80]

Without a final rule for the 2013 RVO in place until Aug. 6, 2013, it is unsurprising that RIN owners held RINs to first ensure their own ability to meet future compliance obligations. Delta's strategy of purchasing all RINs – without any agreement to acquire them in exchange for fuel, or employ a hedging strategy, or wait until prices are more favorable as other refiners do – is ineffective.[81]

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[77] Verleger, Philip K., Jr. "Renewable Identification Numbers." Presentation to the Agricultural Advisory Committee, Commodity Futures Trading Commission, Washington, DC: July 25, 2013.
[78] Thompson, W., Meyer, S., Westhoff, P., amd Whistance, J. "A Question Worth Billions: Why Isn't the Conventional RIN Price Higher?" FAPRI-MU Report #12-12. Columbia, MO: Food and Agricultural Policy Research Institute, December 2012.
[79] Irwin, S. "What's Behind the Plunge in RIN Prices?" FarmdocDaily, October 10, 2013. http://farmdocdaily.illinois.edu/2013/10/whats-behind-the-plunge-in-rin.html. (Appendix XXI)
[80] Delta Air Lines, Inc., Quarterly Report Pursuant to Section 13 or 15(D) of the Securities Exchange Act of 1934, for the quarterly period ended September 30, 2013. Commission File Number 001-5424. http://www.sec.gov/Archives/edgar/data/27904/000002790413000008/dal930201310q.htm. (Appendix XXII)
[81] Jennifer A. Dlouhy, "Delta Air Lines joins fight against renewable fuels standard," Fuel Fix, Dec. 27, 2013. http://fuelfix.com/blog/2013/12/27/delta-air-lines-joins-fight-against-renewable-fuels-standards/. (Appendix XXIII)

Other obligated parties – such as Hess and Global Partners LP – share RINs with business partners; others – such as Holly Frontier, Western Refining, and Alon USA – have made long-term investments to increase blending of ethanol and renewable diesel.[82] In past years, some obligated parties successfully relied on others to make these investments and bear most of the costs of RFS2 compliance – essentially avoiding the cost of polluting by purchasing RINs for pennies. Under the "polluter pays" principle and considering the role of RINs to equalize compliance costs and opportunities across the industry, those employing a strategy of purchasing RINs should expect the price to reflect the opportunity costs. The market has developed efficient mechanisms for assisting obligated parties obtain compliance credits, but uncertainty about the rules can have a disproportionate impact.

**b. Obligated parties should be expected to seek the lowest cost method for compliance.**

Individual companies can choose among several options for meeting their compliance obligations under the RFS2 program and can be expected to choose the lowest-cost options, according to their individual business models. Because RVOs are nested, the value of each RIN category impacts the others.[83] The overall obligation can be met with RINs from any of the nested categories. Only the cellulosic renewable fuel (D3 and D7) and BBD (D4) categories have specific mandates for use; however, these obligations can be met through use of many different types of fuels, including home heating oil. The advanced renewable fuel obligation can be met with any type of RINs except D6. The overall obligation can be met with any type of RIN, including D6. There is no mandate to blend ethanol, as is often erroneously asserted. And although most D6 RINs have been generated with volumes of ethanol, they are not exclusive to ethanol. Some volumes of biodiesel generate D6 RINs.

By setting the level of the overall RVO to the amount of ethanol that can be consumed in a blend of E10 and well below the industry's production capacity, EPA's proposed new methodology would impermissibly ensure that the vast majority of non-advanced RVOs are met with conventional ethanol. It also stands in stark contrast to the Agency's stated desire to preserve "flexibility in how the required volume of advanced biofuel is achieved."[84]

Ethanol is a cost-effective addition to the gasoline supply.[85] It is, therefore, the lowest cost option for meeting the overall RVO. From 2010 through 2012, and in earlier years under RFS1, many obligated parties blended more ethanol than was required by the RFS, creating a surplus of D6 RINs that were valid to meet up to 20 percent of RFS2 obligations in subsequent years. Some obligated parties could then purchase RINs, rather than blend biofuels, as the lowest-cost method of compliance. However, this strategy shifted compliance costs to those parties who invested in renewable fuel capacity, while minimizing costs to those who avoided compliance.

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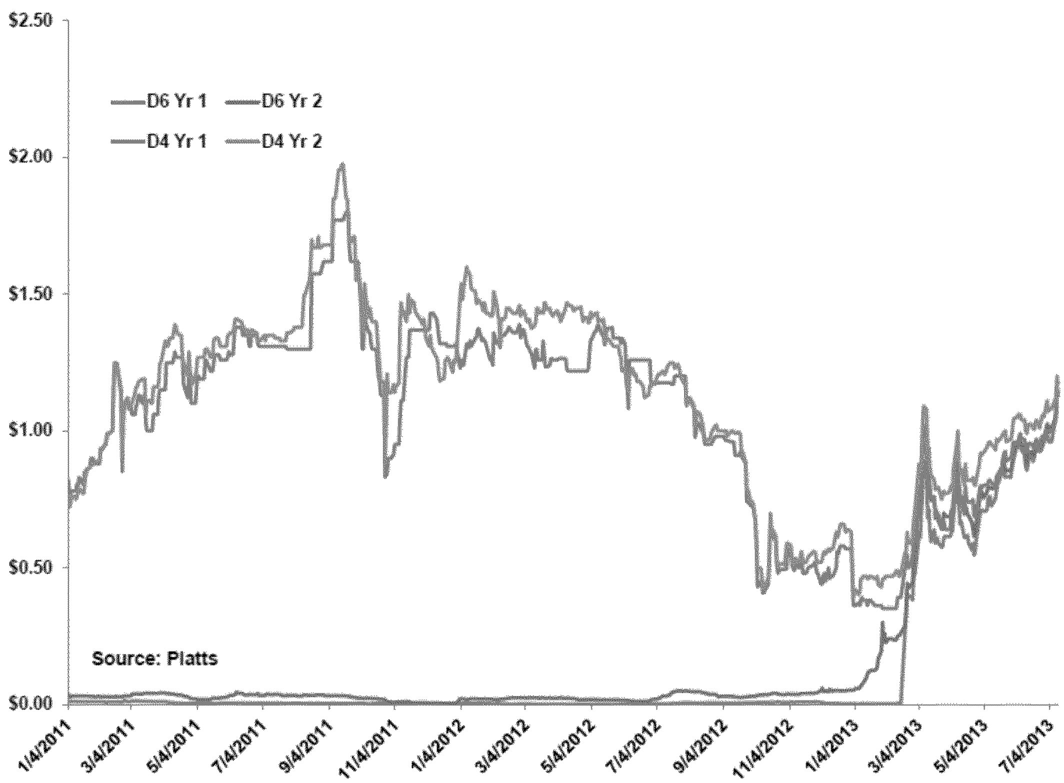
[82] Bryan Sims, "Volatile RIN Credit Market Pits Winners, Losers in Obligated Party Quarterly Earnings," Ethanol & Biofuels News, Vol. XXV, No. 33, Aug. 21, 2013.
[83] Bryan Sims, "How RIN Market Volatility Impacted Obligated Party 3Q 2013 Earnings," Ethanol & Biofuels News, Vol. XXV, No. 46, Dec. 4, 2013.
[84] Fed. Reg. 78(230), Fri. Nov. 29, 2013, pp.71753-71754.
[85] Wood, A. "Ethanol blending provides another proxy for gasoline demand," Today in Energy, U.S. Energy Information Administration, Oct. 7, 2013. http://www.eia.gov/todayinenergy/detail.cfm?id=13271 (Appendix XXIV)

The prices of D4 and D5 RINs over the same time frame were higher, due to relative scarcity. Use of qualifying fuel and the separation of RINs has been sufficient to meet the RFS obligation, with some carryover of RINs after 2010. No qualifying RINs were created under the RFS1 program for the undifferentiated advanced biofuel or BBD obligations. While there was no surplus of RINs, obligations for advanced and BBD biofuels were also comparatively low. The perceived shortage of valid D4 RINs caused prices to rise during 2011 and 2012. That perception also resulted in ongoing underutilization of capacity in the biodiesel industry. Increased confidence in the biodiesel industry reduced RIN prices beginning in the fall of 2012. The ability of the industry to rapidly increase production and blending of biodiesel and advanced biofuel should continue to lower the costs of D4 and D5 RINs, which should also lower the cost of D6 RINs – since the RINs are fungible for meeting the overall renewable fuel obligation.

**Figure 1: D6 and D4 Prices, 2011-2013**




Source: Platts

While cellulosic RINs have fallen short of the obligated volumes, their price has been controlled by the value of the Cellulosic Waiver Credit. The value of cellulosic biofuel as a fuel can be calculated from the alternative RFS2 compliance option, which is to purchase the credit and a replacement gallon of advanced biofuel with a RIN.[86] Currently, because so few cellulosic RINs have been generated, the trading price has been pegged to the price of the waiver credit – but that does not reflect their true cost. As with other RINs, the price of a cellulosic RIN should rise to the cost of the next available compliance option. This mechanism ensures that cellulosic biofuels, when they reach commercial scale, will be cost-competitive with other fuels. <u>EPA's proposal to lower the advanced biofuel obligation from 2.75 billion RINs in 2013 to 2.21 billion RINs in 2014 will create a disincentive for purchasing cellulosic biofuel by artificially lowering the cost of the alternative method of compliance</u>.

Because the RFS provides flexible compliance options, obligated parties can calculate the costs of various options and select the least-cost method. They can also calculate at any time during the year the cost of compliance with the RVOs and adjust their compliance strategy. There is no existing requirement for obligated parties to purchase or transfer RINs during the year. If the price of any one category of RINs rises due to inadequate supply or even the inability to blend a specific type of renewable fuel into the fuel supply, it should rise only to match the next-lowest-cost method of compliance, since the RINs are fungible.[87] Obligated parties can also wait until RIN prices are more favorable, as many report doing. The next lowest cost method of compliance is not limited to purchasing RINs, and it can include future expectations of pricing as well as the opportunity costs of the compliance method. Those opportunity costs can include:

**i. Investment in the development of advanced and cellulosic biofuels.**

Growth of the cellulosic biofuel industry has been hampered by tight capital markets in the wake of the international recession.[88] Nevertheless, several first-of-a-kind cellulosic biorefineries have been commissioned and are producing fuel, with additional ones nearing construction completion and operational startup. Many more demonstration-scale cellulosic biorefineries have been built and operated as part of the commercial scale-up process. (See Appendix LXII)

Advanced biofuel biorefineries have also been demonstrated, built and operated, utilizing approved pathways for advanced feedstocks. <u>The licensing of available and proven technology or investment in construction of a new biorefinery to secure RINs could for some obligated parties be a lowest-cost choice</u>.

To meet RFS goals for advanced biofuel production, building capacity of 23 billion gallons would require a total cumulative investment of $95 billion or more. The average capital cost per gallon of installed capacity for cellulosic and advanced biofuel facilities is projected to fall over time, from more than $5.00 per gallon to less than $4, as

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[86] Biotechnology Industry Organization. "The value proposition for cellulosic and advanced biofuels under the US federal renewable fuel standard." Industrial Biotechnology. April 2011, 7(2): 111-117. doi:10.1089/ind.2011.7.111. (Appendix LXVII)
[87] Irwin, S. Oct. 31, 2013.
[88] Bomgardner, Melody. "Building a New Biofuels Industry." Chemical & Engineering News, 91(4), pp. 20-22, Jan. 28, 2013.

commercialization of the industry progresses.[89] To date, the industry has invested more than $5.9 billion to bring the first commercial facilities online, with an average investment of $110 million per facility.[90]

RINs can help investors or first-adopter purchasers recoup these costs. For instance, though not an obligated party, United Airlines has formed a purchase agreement with AltAir Fuels that enables the biofuel producer to obtain financing and retrofit an existing oil refinery to produce renewable jet fuel.[91] The use of oil seed crops to produce jet fuel can be cost-competitive with a subsidy of $0.35 per gallon.[92] Since AltAir's use of camelina is an approved pathway, RINs could provide that subsidy. However, since United Airlines is not an obligated party, registration of the facility for generation of RINs represents an opportunity cost for AltAir.

<u>EPA's proposed rule will destroy incentives to invest in development of advanced biofuels by eliminating both incentives for new methods of compliance beyond E10 and the profits of conventional biofuel producers who are most likely to be first-adopters of the technology</u>. Jim Collins, a senior vice president of DuPont, recently testified to the Senate Committee on Environment and Public Works, "If the RFS is administered in a way that keeps RINs cheap, then there will not be an incentive to create an efficient route to market for renewable fuel."[93] But moderate RIN prices for the D6 category of $0.59 would be sufficient to incentivize substantial adoption of either E85 or butanol, according to an analysis by Butamax, a joint venture of BP and DuPont.[94]

Limiting demand for ethanol, as EPA has proposed, will also limit the resources of the biofuel industry to invest in advanced biofuels. As Matt Merritt, a spokesman for POET, put it, "Anything you do to hurt the profitability of the grain ethanol producers is going to hinder their ability to invest in this new technology as well."[95] POET-DSM plans to both deploy cellulosic ethanol production technology at its existing conventional biofuel facilities and license the technology to other conventional biofuel producers, as does DuPont.

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[89] BIO/Bio-Economic Research Associates, "U.S. Economic Impact of Advanced Biofuels Production: Perspectives to 2030." Washington, DC: February 2009.
[90] BIO data. (Appendix LXII)
[91] "United to purchase biojet from AltAir Fuels." Biomass Magazine, July 1, 2013.
[92] Winchester, N., McConnachie, D., Wollersheim, C., and Waitz, I. "Market Cost of Renewable Jet Fuel Adoption in the United States." Cambridge, MA: The Partnership for Air Transportation Noise and Emissions Reduction, March 2013.
[93] Statement of James C. Collins, Jr., Senior Vice President, Industrial Biosciences, Performance Polymers and Packaging & Industrial Polymers, DuPont. Oversight Hearing on Domestic Renewable Fuels, Committee on Environment and Public Works, Dec. 11, 2013. http://www.epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=659cadf2-0420-4480-b9d8-d32c7735128a. (Appendix XXV)
[94] Butamax Advanced Biofuels. How the RFS Actually Delivers Renewable Energy Policy Objectives. Wilmington, DE: October 2013.
[95] Mark Steil, "New cellulosic plants may be hurt by changed RFS," Prairie Business, Dec. 17, 2013. http://www.prairiebizmag.com/event/article/id/17116/group/Energy%20and%20Mining/#sthash.6YYuwNVv.dpuf. (Appendix XXVI)

ii. **Continued development of biofuel infrastructure.**

E15 and E85 are approved fuels. If ethanol continues to saturate the overall renewable volume obligation, it is "likely that E85 will be the least-cost approach to moving beyond the blend wall."[96] Babcock and Pouliot argue that since E85 generates more RINs than E15 and requires smaller volumes to meet the RFS obligations, and there are concentrated geographic areas where the number of flex-fuel vehicles (FFVs) creates a viable market, the cost of deploying infrastructure for E85 is lower than for E15. Market resistance to E85 may also be lower, since the American Petroleum Institute has launched a multimillion dollar public relations campaign to destroy demand for E15.[97] Nevertheless, changes being made to car warranties offered by automakers could expand acceptance of E15.[98]

Babcock and Pouliot analyze the economic incentive for fuel retailers and refiners to invest in the infrastructure for deploying E85, which they argue is tied to the price of corn, the price of RINs, and the price of gasoline.[99] They also recognize that the price of RINs and profitability of E85 sales would also have to recover the $50,000 to $60,000 investment in an E85 pump. Their published table, reproduced below, allows calculation of the RIN price that will drive adoption of E85, when E10 is priced as high as $3.75 or as low as $3.25 per gallon.

**Figure 2: RIN Prices and E85 Pump Prices at Different E10 Prices**

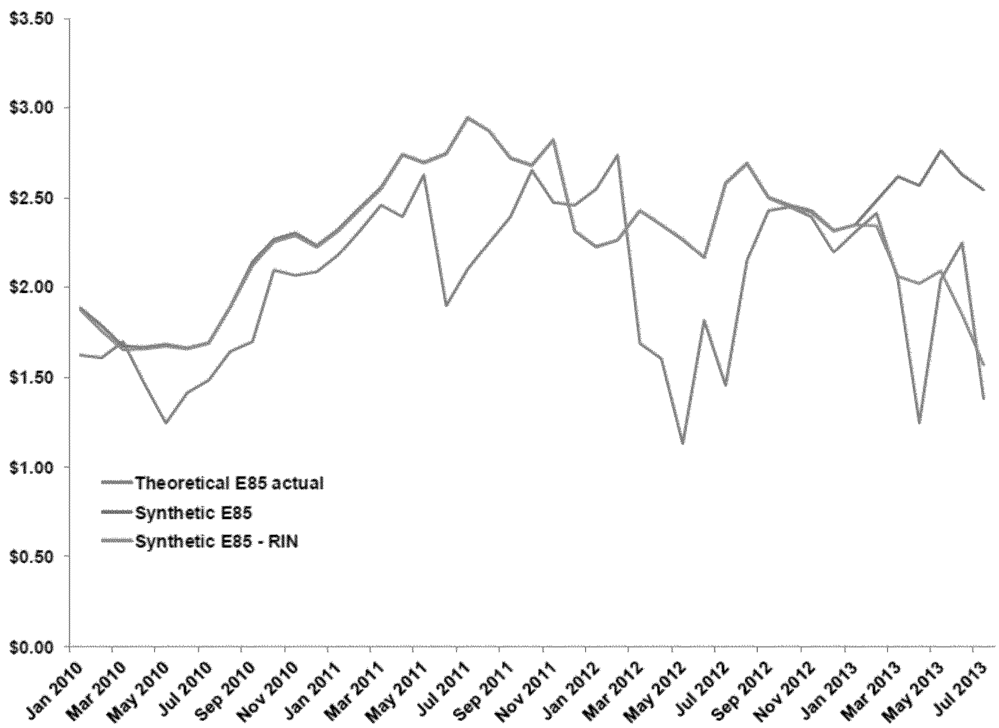
| | E10 Price = $3.75/gal | | E10 Price = $3.25/gal | |
|---|---|---|---|---|
| Fuel Cost Ratio | E85 Pump Price | RIN Price | E85 Pump Price | RIN Price |
| | | $/gal | | |
| 1.2 | 3.47 | 0.00 | 3.00 | 0.00 |
| 1.1 | 3.18 | 0.00 | 2.75 | 0.06 |
| 1.0 | 2.89 | 0.00 | 2.50 | 0.40 |
| 0.9 | 2.60 | 0.27 | 2.25 | 0.73 |
| 0.8 | 2.31 | 0.65 | 2.00 | 1.06 |
| 0.7 | 2.02 | 1.04 | 1.75 | 1.40 |
| 0.6 | 1.73 | 1.42 | 1.50 | 1.73 |

Source: Babcock and Pouliot

[96] Babcock, B. and Pouliot, S. Price It and They Will Buy: How E85 Can Break the Blend Wall. Ames, Iowa: Center for Agricultural and Rural Development, Aug. 2013, CARD Policy Brief 13-PB11.
[97] NACS Online, "Oil Industry Launches Ad Campaign to Repeal RFS," July 17, 2013. http://www.nacsonline.com/News/Daily/Pages/ND0717131.aspx (Appendix XXVII)
[98] Tom Bryan, "Most automakers on board with E15," Ethanol Producer, Dec. 30, 2013. http://www.ethanolproducer.com/blog/article/2013/12/most-automakers-on-board-with-e15 (Appendix XXVIII)
[99] Babcock, B. and Pouliot, S. How Much E85 Can Be Consumed in the United States? Ames, Iowa: Center for Agricultural and Rural Development, Nov. 2013. CARD Policy Brief 13-PB 15.

In July 2013, Philip K. Verleger – an oil industry analyst and editor of Petroleum Economics Monthly – testified to the Commodity Futures Trading Commission that Marathon Petroleum Corp. was "making a large, concerted effort to market E85" in Minnesota. The preliminary results indicated a 120 percent increase in E85 consumption during April and May 2013 due to favorable pricing. This was achieved by passing the profits from RIN sales to consumers.[100] The data in Figure 3 show that the E85, if offered at a discount to gasoline in the Midwest in order to encourage adoption, would easily match the synthesized price – drawn from the cost of the blending components – plus the RIN price. With 2013 RIN prices, E85 offered at scale in the Chicago and Nebraska markets could be priced $0.30 to $0.60 lower than gasoline, as shown in Figure 4.

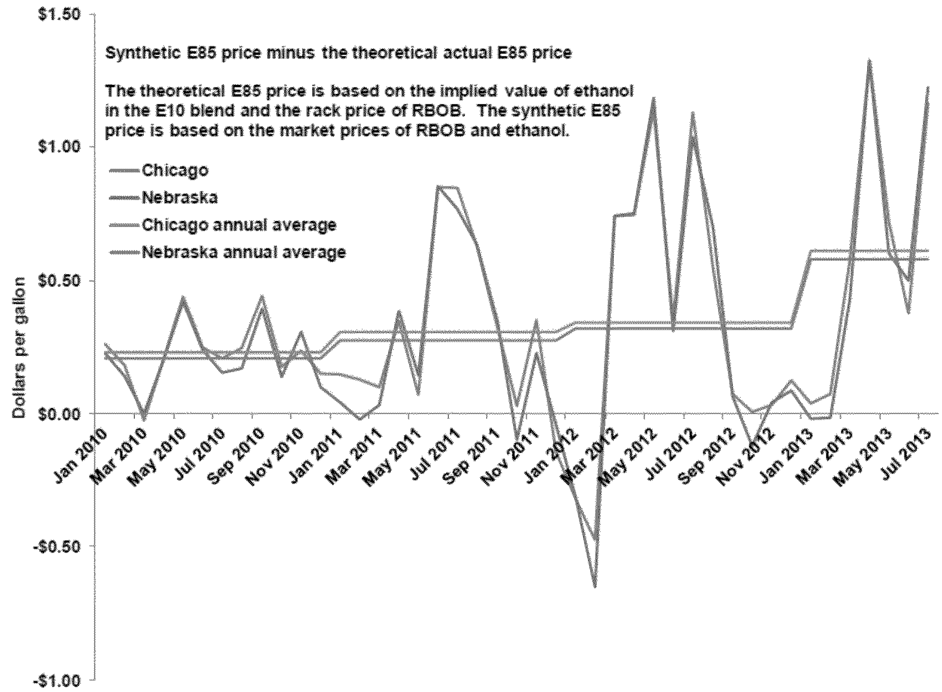
**Figure 3: RINs Can Reduce the Price of E85**




Source: Platts

[100] Ibid. Verleger, July 2013.

Figure 4: E85 Can Be $0.30-0.60 Lower than E10, with Higher Volumes




Source: Platts

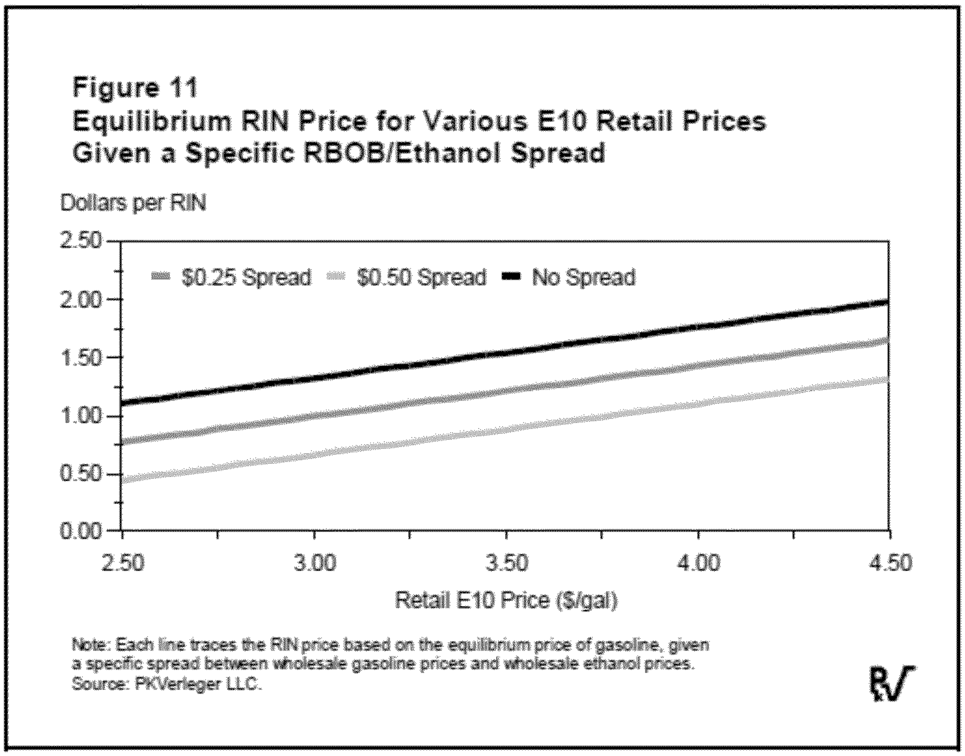
On August 8, Marathon reported that their income increased by $22 million in the first six months of 2013, compared to the same time period in 2012, "primarily due to increases in sales of Renewable Identification Numbers ("RINs") and dividends received from pipeline affiliates."[101] In a subsequent report to investors, on November 11, Marathon stated, "On August 1, 2013, we acquired from Mitsui & Co. (U.S.A.), Inc. its interests in three ethanol companies for $75 million."[102] Clearly, high RIN prices during 2013 incentivized this successful experiment in marketing E85.

Verleger includes the following chart of RIN prices necessary to incentivize E85 sales with a 20 percent discount relative to E10 gasoline. Data from the Minnesota Department of

[101] Marathon Petroleum Corporation, Quarterly Report Pursuant to Section 13 or 15(D) of the Securities Exchange Act of 1934 for the Quarterly Period Ended June 30, 2013. Commission file number 001-35054. http://www.sec.gov/Archives/edgar/data/1510295/000119312513326060/d543398d10q.htm. (Appendix XXIX)
[102] Marathon Petroleum Corporation, Quarterly Report Pursuant to Section 13 or 15(D) of the Securities Exchange Act of 1934 for the Quarterly Period Ended September 30, 2013. Commission file number 001-35054. http://www.sec.gov/Archives/edgar/data/1510295/000151029513000003/mpc-2013930x10q.htm (Appendix XXX)

Commerce shows that reported and estimated sales of E85 declined in October, as the prices of gasoline and RINs declined.[103] There is already anecdotal evidence that EPA's proposed rule (and the preceding leak of that rule in October) have reversed investments in E85 infrastructure. Protec Fuels, which sells E85 pumps, has seen two orders put on hold since the release of the proposed rule.[104]

**Figure 5: Equilibrium RIN Prices for E10 Retail Prices**




Source: Verleger

Similarly, Global Partners LP made investments in ethanol production that would be undercut by EPA's proposed rule for 2014. In February 2013, the corporation acquired a crude oil and ethanol facility near Portland, Ore. In their third quarter report to investors, the company stated, "A reduction or waiver of the RFS mandate or oxygenate blending

[103] Minnesota Department of Commerce, Division of Energy Resources. "2013 Minnesota E85 + Mid-Blends Station Report." http://mn.gov/commerce/energy/images/E-85-Fuel-Use-Data.pdf, (Appendix XXXI) (accessed Dec. 19, 2013).

[104] Michael Hirtzer, "ANALYSIS – High-ethanol gas: Not coming to a pump near you," Reuters, Nov. 27, 2012. http://uk.reuters.com/article/2013/11/27/usa-ethanol-e-idUKL2N0JA1EB20131127 (Appendix XXXII) (accessed Dec., 20, 2013)

requirements could adversely affect the availability and pricing of ethanol, which in turn could adversely affect our future gasoline and ethanol sales."[105]

### iii. Biodiesel blending and co-processing

USDA and University of Illinois economists note that obligated parties have a choice between deploying E85 and additional renewable diesel.[106] Scott Irwin of the University of Illinois has developed a model of the relationship between biodiesel pricing, soybean pricing and D4 RIN values.[107] Similar to D6 RINs, there is an opportunity cost built into the pricing of these RINs, incorporating speculation on the future existence of tax credits and future price of RINs.

The model does not account for various opportunity costs in biodiesel blending. For example, Augsberg Energy finds that even with high RIN prices, only 44 percent of existing biodiesel capacity is in use in 2013.[108] Production is dominated by larger, better established companies. Smaller producers remain idle or closed due to lack of access to capital for maintenance and technology improvements as well as ongoing mistrust of small producers in the wake of fraud cases.

Augsberg finds that the total operating and idle capacity for the biodiesel industry is 2.2 billion gallons. EPA's proposal of a 1.28 billion gallon BBD RVO and a 2.21 billion gallon total advanced biofuel RVO further destroys incentive to invest necessary capital to maintain or upgrade the idle and closed biodiesel refineries. This will further push the smallest BBD producers from the market. It will also leave no room for the deployment of other advanced biofuels.

The National Advanced Biofuels Consortium notes that petroleum refineries have unused capacity that could be modified to co-process biomass liquids to advanced biofuels and chemicals – as is being done by AltAir Fuels under agreement with United Airlines. The approval of a pathway to allow petroleum refiners to generate RINs from co-processed biomass is needed to help make this strategy economically competitive with biodiesel blending, during early stages of deployment.[109]

The Energy Information Administration projects a long-term decline in gasoline demand, but a long-term increase in diesel demand due to fuel efficiency standards.[110]

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[105] Global Partners, LP., Quarterly Report Pursuant to Section 13 or 15(D) of the Securities Exchange Act of 1934 for the Quarterly Period Ended September 30, 2013. Commission file number 001-32593. http://www.sec.gov/Archives/edgar/data/1323468/000110465913082310/a13-19558_110q.htm. (Appendix XXXIII)

[106] Meyer, S., Johansson, R. and Paulson, N. "E85 and the Blend Wall," FarmdocDaily, Oct. 4, 2013. http://farmdocdaily.illinois.edu/2013/10/e85-blend-wall.html. (Appendix XXXIV)

[107] Irwin, S. "Biodiesel Supply, Demand, and RINs Pricing," FarmdocDaily, Oct. 24, 2013. http://farmdocdaily.illinois.edu/2013/10/biodiesel-supply-demand-rins-pricing.html (Appendix XXXV)

[108] Augsburg Energy LLC, "Study 198- Biodiesel Industry Insight." Mahwah, NJ: Sept. 11, 2013. http://augsburgenergy.com/2013/study-198-biodiesel-industry-insight/ (Appendix XXXVI)

[109] Rick Weyen, "A Refiner's Perspective on Advanced Biofuels," National Advanced Biofuels Consortium, March 30, 2012. http://www.nabcprojects.org/pdfs/refiner_perspective_advanced_biofuels.pdf. (Appendix XXXVII)

[110] U.S. Energy Information Administration, Annual Energy Outlook 2013, http://www.eia.gov/forecasts/aeo/MT_liquidfuels.cfm. (Appendix XXXVIII)

Export demand for diesel is a strong component of the current demand, as U.S. monetary policy has reduced the cost of U.S. refined diesel in comparison to the Brent crude benchmark.[111] The long-term trend will require investments by refiners to change the ratio of gasoline production to diesel production from the current 2.3 to 1.6 by 2035, according to EIA. Because diesel fuels are more expensive to refine, this change could also impact refinery profitability, reducing the 3-2-1 crack spread to 5-3-2. Tier 3 Vehicle Emission and Fuel Standards Program regulations could further tighten requirements for producing gasoline and diesel,[112] further raising the costs and lowering the profitability of refiners. Investments in renewable diesel and co-processing of biomass for some refiners could represent an opportunity to maintain a more optimal crack spread at a lower investment cost.

#### iv. Some obligated parties have made infrastructure investments

U.S. refiners and obligated parties have reported the costs of RINs and their strategies for managing those costs in their quarterly reports to investors, which are filed with the U.S. Securities and Exchange Commission and publicly available. A number of refiners have begun to increase their blending of ethanol and biodiesel as a way to mitigate the cost of RINs. For instance, Delek US Holdings, which owns refining, logistics and fuel retail interests, recounted during the third quarter of 2013 its prior adjustment to its refinery and logistics operations: "The Tyler refinery began supplying a 10% ethanol gasoline blend (E-10) in January 2008 and 5% biodiesel blends in June 2011. The El Dorado refinery completed projects at the truck loading rack in June 2011 to make E-10 available and in July 2012 to make biodiesel blends available."[113] <u>Companies that already have made investments in blending capacity to comply with increasing future renewable fuel requirements would bear a disproportionate cost of compliance if the RVOs were set to minimize the value of RINs</u>. They would in effect be supplying compliance at a low cost to companies that refused to make similar investments.

Likewise, pipeline companies and blending terminals that have made investments in infrastructure to supply biofuel blends would be unable to recover the costs of that investment through RIN sales. EPA's proposal has already lowered the value of RINs, negatively impacting these companies. For instance, Buckeye Partners, which owns a refinery as well as pipelines and terminals, reported to its investors, "In the third quarter of 2013, the value of RINs declined as the U.S. Environmental Protection Agency lowered the required blend volumes for renewable fuels, which had an adverse impact on earnings during the period."[114]

RINs are intended to balance the costs of compliance over time. EPA's proposal shifts that balance.

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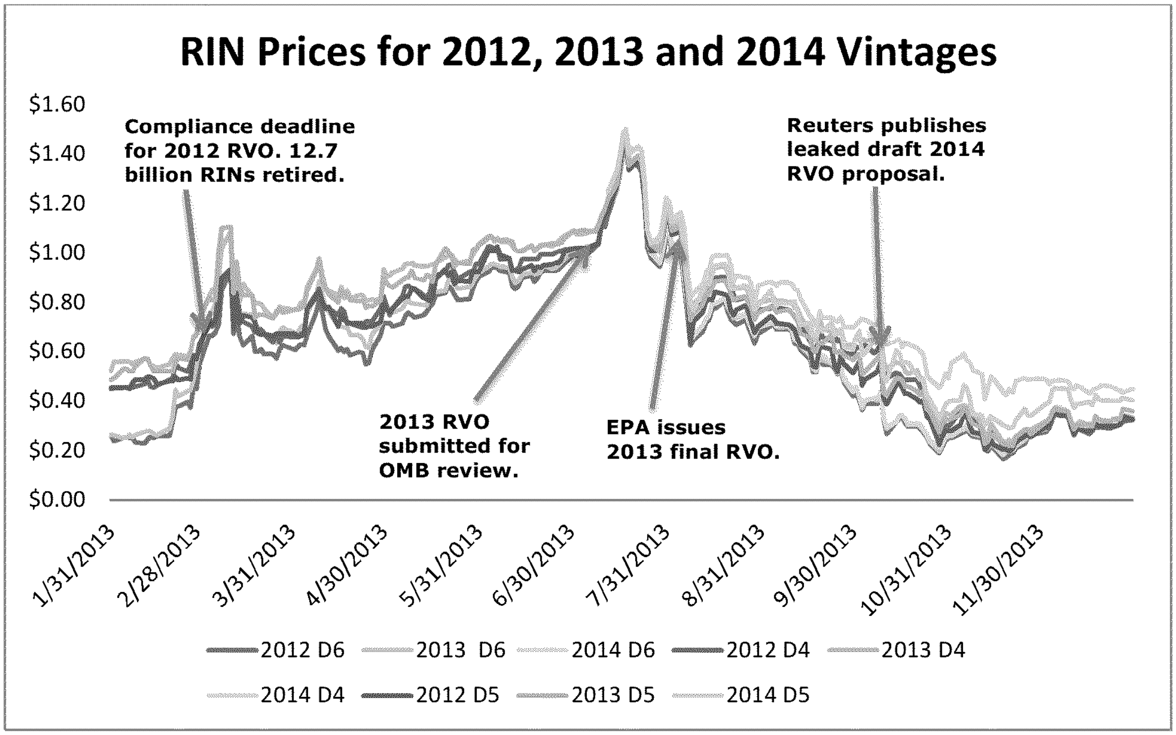
[111] U.S. Energy Information Administration, "Short-Term Energy Outlook: Market Prices and Uncertainty Report," December 2013.
[112] Weyen, 2012.
[113] Delek US Holdings, Inc., Quarterly Report Pursuant to Section 13 or 15(D) of the Securities Exchange Act of 1934 for the Quarterly Period Ended September 30, 2013. Commission file number 001-32868. http://www.sec.gov/Archives/edgar/data/1351541/000135154113000016/dk-9302013x10q.htm (Appendix XXXIX)
[114] Buckeye Partners, LP, Quarterly Report Pursuant to Section 13 or 15(D) of the Securities Exchange Act of 1934 for the Quarterly Period Ended September 30, 2013. Commission file number 1-9356. http://www.sec.gov/Archives/edgar/data/805022/000110465913080024/a13-19282_110q.htm (Appendix XL)

**v. D6 RIN price spikes pushed other RIN prices above historical averages**

The rise in D6 RIN prices attributed to the blend wall also pushed D4 and D5 RIN prices higher, as shown in Figure 4. This led to an increase in production and use of these categories of fuels, as shown in Figure 5. After reaching highs in late July, RIN prices fell after EPA released the final RVOs for 2013, which gave much needed assurance to all stakeholders and encouraged more RIN trading. Importation of advanced biofuels – a short-term compliance strategy – declined with this industry assurance. EPA's release of the 2014 RVO proposal in November also has kept RIN prices stable, but has undercut the price of 2012 and 2013 vintage RINs more than 2014 vintage RINs. Timely proposal and release of RVOs is important to all stakeholders. The RIN market can work to encourage increased production of biofuels.

The variance in pricing for different vintage RINs – including contracts for 2014 RINs that have not been generated yet – shows the need for stable policy over multiple years. Because biomass-based diesel can supply undifferentiated demand in both the conventional and advanced biofuel RVOs in the future – and overcome the E10 "blend wall" – both production and the value for 2014 vintage RINs remained high at the end of 2013, even as importation of advanced biofuel declined. To develop a domestic industry and reduce reliance on imports, the biofuels industry needs assurance of long-term increasing demand for production.

Figure 6: RIN Prices in 2013

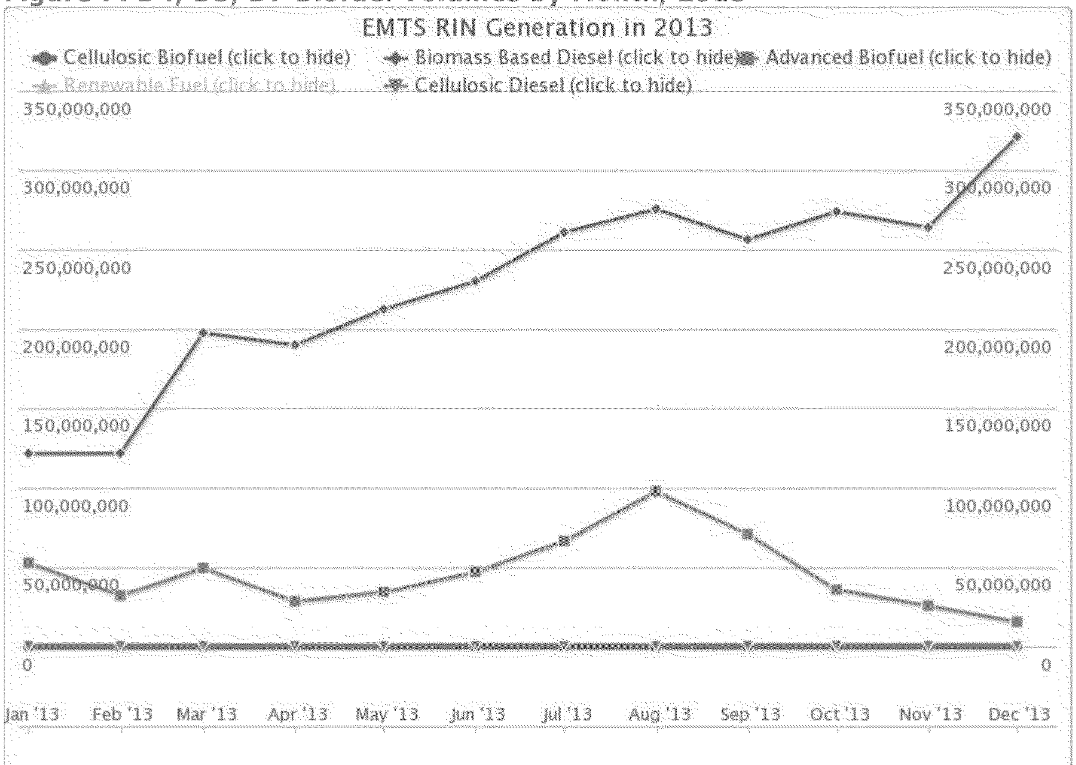



Source: Oil Price Information Service, OPIS End of Day Ethanol Assessment Report.

Pricing of RINs for cellulosic biofuels were unaffected by the increases in prices for other RINs. Once trade in cellulosic RINs matures, the cost will reflect the full cost of alternative methods of compliance. This value can drive further investment and deployment of cellulosic biofuels.[115] Policy that supports continued long-term value for advanced biofuel RINs, including BBD RINs, is necessary for the emergence of cellulosic biofuels.

[115] See Biotechnology Industry Organization, The value proposition for cellulosic and advanced biofuels under the US federal renewable fuel standard." Industrial Biotechnology. April 2011, 7(2): 111-117. doi:10.1089/ind.2011.7.111.

Figure 7: D4, D5, D7 Biofuel Volumes by Month, 2013




Source: EPA Moderated Transaction System.

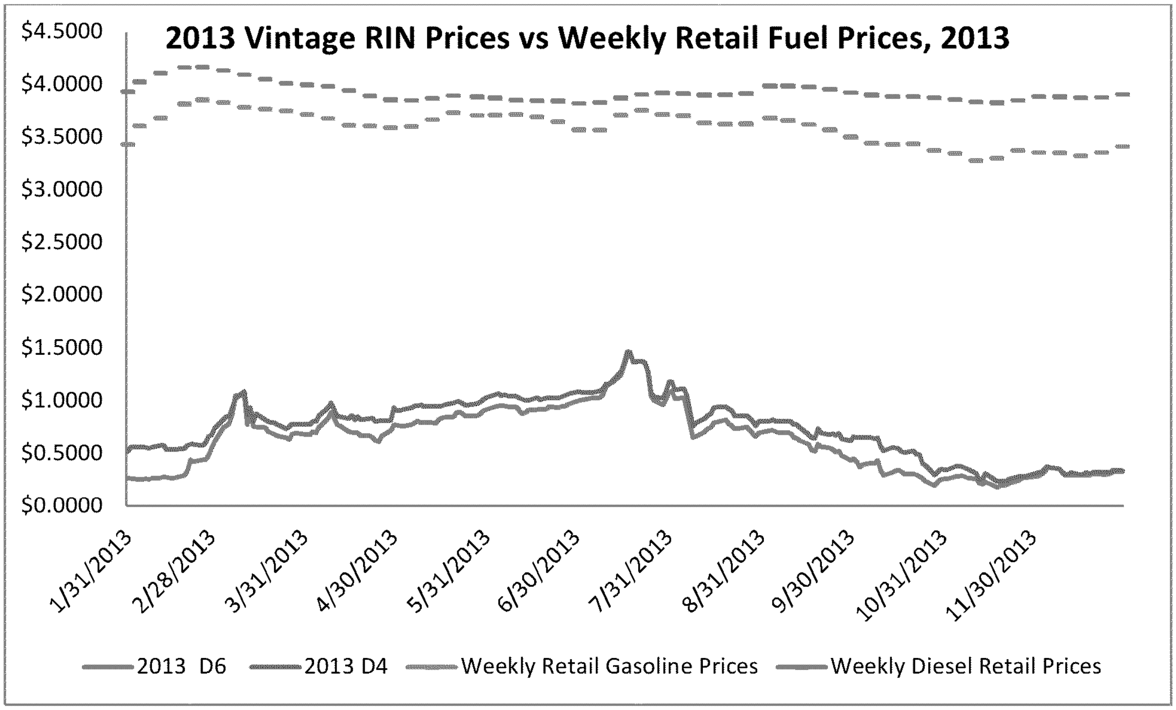
### c. RIN costs are not passed through to consumers

Competitive pressure among obligated parties employing various strategies for RFS compliance protects consumers from the costs of RINs. While some refiners must purchase RINs when their compliance strategy falls short, they must obtain them from other market participants who have blended the renewable fuel or defer their obligation. Integrated refiners such as Delek US Holdings and Phillips 66 report to their investors that the purchase and sales of RINs between their refining and logistics segments are eliminated in consolidated financial statements. Similarly, the cost and sales of RINs among unaffiliated refiners, blenders and fuel retailers are equalized through the market and absorbed by shareholders of the obligated parties. Simply put a refiner who tries to pass RIN purchase costs to the consumer can be undercut in price by a refiner or retailer who profits from RIN sales.

#### i. Data show that costs are not passed to consumers

A simple comparison shows that the spikes in RIN prices in March, April and July were not reflected in on-road retail fuel prices during 2013. Average on-road prices for gasoline in 2013 are down slightly compared to 2012, and they follow price patterns similar to 2012 and 2011[116] when the price of D6 RINs was negligible.

Figure 8: RIN Prices and Gasoline Prices, 2013




Sources: Oil Price Information Service, Energy Information Administration

Data from Figure 1 also indicate that D4 RIN prices averaged more than $1.00 through 2011 and 2012, settling to the $0.50 range in early 2013. Average monthly on-road diesel prices throughout 2011, 2012 and 2013 show similar price patterns, according to data from the Energy Information Administration. There is no correlation in on-road diesel prices to the spike in D4 RIN prices that occurred in September 2011 or the drop in October 2012.

In statements to their shareholders, a few refiners have acknowledged the zero-sum nature of the RIN market. For instance, CVR Energy, which operates both refineries and logistics, informed its investors in early November 2013:

> "Many petroleum refiners blend renewable fuel into their transportation fuels and do not have to pass on the costs of compliance through the purchase of RINs to their

[116] T. Mason Hamilton, "Gasoline prices this Thanksgiving lower than a year ago," Today in Energy, Nov. 27, 2013. http://www.eia.gov/todayinenergy/detail.cfm?id=13971 (Appendix XLI)

customers. Therefore, it may be significantly harder for the petroleum business to pass on the costs of compliance with RFS to its customers."[117]

Northern Tier Energy acknowledged to its shareholders that the costs "could have a material adverse effect on our results of operations and financial condition, and our ability to make distributions to our unit holders."[118]

Importantly, the competitive marketplace for transportation fuel means the consumer implications of RFS compliance are fundamentally different from those for programs regulating power generation, such as carbon cap and trade programs. Because electricity markets are highly regulated and lacking in local competition, utilities that incur high compliance costs can often pass those costs on to ratepayers. As we have demonstrated, in the case of the RFS, the highly competitive retail landscape for transportation fuel prevents compliance costs from reaching the consumer. In asserting that high RIN prices risk imposing compliance costs on consumers, EPA appears to confuse these two fundamentally different markets.

#### d. EPA should make the EMTS system more transparent

Thomas D. O'Malley, chairman of PBF Energy, in September 2013 publicly claimed that JPMorgan Chase and other financial institutions "had helped transform an environmental program into a profit machine, contributing to the market frenzy this year."[119] The claim caused concern among members of Congress and sparked interest at the Commodity Futures Trading Commission in overseeing trading of RINs.[120] The Renewable Fuels Association pointed out that RIN price spikes were closely tied to the occurrence of Congressional hearings on the RFS.[121]

Mr. O'Malley's claim is impossible to verify. According to EPA, RFS RIN transaction information recorded in the EPA Moderated Transaction System (EMTS) "is claimed Confidential Business Information and is withheld under exemption 4 (5 U.S.C. § 552(b)(4))."[122] Nevertheless, numerous obligated parties have reported the costs of their RIN purchases in quarterly and annual reports to investors, which are filed with the SEC and publicly available and are reported in public fora such as investor calls.[123]

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[117] CVR Energy Inc., Quarterly Report Pursuant to Section 13 or 15(D) of the Securities Exchange Act of 1934 for the Quarterly Period Ended September 30, 2013. Commission file number 001-33492. http://www.sec.gov/Archives/edgar/data/1376139/000137613913000024/cviq32013form10-q.htm (Appendix XLII)
[118] Nortern Tier Energy, Quarterly Report Pursuant to Section 13 or 15(D) of the Securities Exchange Act of 1934 for the Quarterly Period Ended September 30, 2013. Commission file number 001-35612. http://www.sec.gov/Archives/edgar/data/1533454/000119312513331832/d549068d10q.htm (Appendix XLIII)
[119] Gretchen Morgenson and Robert Gebeloff, "Wall St. Exploits Ethanol Credits, and Prices Spike," New York Times, Sept. 14, 2013. http://www.nytimes.com/2013/09/15/business/wall-st-exploits-ethanol-credits-and-prices-spike.html?_r=0 (Appendix XLIV)
[120] Charles Abbott, "U.S. senator asks CFTC to look into biofuel credit pricing," Reuters, Sept. 24, 2013. http://www.reuters.com/article/2013/09/24/us-usa-agriculture-biofuels-idUSBRE98N0P720130924. (Appendix XLV)
[121] Jennifer A. Dlouhy, "Renewable fuel pays off for some oil refiners," FuelFix, Sept. 6, 2013. http://fuelfix.com/blog/2013/09/06/renewable-fuel-pays-off-for-some-refiners/ (Appendix XLVI)
[122] Byron J. Bunker, Director, Compliance Division, OTAQ. Letter to Paul Winters, Biotechnology Industry Organization, Re: Freedom of Information Act Request No. EPA-HQ-2014-000178, Dec. 4, 2013.
[123] Bryan Sims, "How RIN Market Volatility Impacted Obligated Party 3Q 2013 Earnings," Ethanol & Biofuels News, Vol. XXV, No. 46, Dec. 4, 2013.

Price discovery in the RIN system appears to be very efficient to outside observers.[124] But that price discovery efficiency is only available to those engaged in the active trading of RINs. Investors and other stakeholders in the RIN system ought to have access to the same price discovery information.

EPA has made efforts during 2013 to provide additional information in a timely manner on RIN availability and retirement. However, the additional information is not sufficient to prove or disprove public claims of price manipulation through RIN trading. Increased certainty in the RIN trading system would mitigate concerns of improper trading. In the absence of timely rulemakings, it would also improve liquidity by mitigating the perception of future shortages.

#### i. Timeliness in EPA rulemaking would mitigate uncertainty that contributed to RIN price spikes

At least some of the rise and subsequent fall in RIN prices during 2013 was caused by uncertainty associated with the timing of the annual rulemakings. Prices began to climb in late February 2013 as the compliance deadline for 2012 RVOs approached and finalization of the 2013 RVO proposal was delayed as EPA awaited the results of the *API v EPA* suit. RIN prices declined in August as the 2013 RVO was finalized. RIN prices also dropped in October 2013 as a draft of the 2014 RVO was leaked to the press.[125] EPA should seek to eliminate uncertainty from the system by following past practice in establishing the RVOs, adhering to previous interpretations of the waiver authorities, and completing timely rulemakings.

EPA's proposal to reduce RVOs in 2014 – compared to proven renewable fuel use in 2013 – could cause shortfalls in biofuel production capacity in future years. Stakeholders are making decisions now, based on EPA administration of the RFS that will impact the types of renewable fuels produced and sold in future years.[126] Wally Tyner notes that setting the RVOs too low destroys the market pull to sell E85.[127] The same phenomenon occurs for other categories of biofuels and other options to solve the blend wall.

### e. Biofuel provides consumers cost savings

The production and use of renewable fuel, driven by the Renewable Fuel Standard, has kept oil costs between $15 and $40 per barrel lower than they would have been.[128] This translates to a reduction in gasoline prices at the pump between $0.50 and $1.50, saving U.S. consumers between $700 billion and $2.6 trillion during 2013.[129] The savings for

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[124] Irwin, Oct. 10, 2013.
[125] Cezary Podkul, "EPA proposes big reduction in 2014 ethanol blend volume: document," Reuters, Oct. 10, 2013. http://www.reuters.com/article/2013/10/10/us-epa-ethanol-idUSBRE9990VU20131010 (Appendix XLVII)
[126] See Michael Hirtzer, "Bunge ethanol plant sale reflects doubt over EPA mandate," Reuters, Jan. 3, 2013. http://www.reuters.com/article/2014/01/03/bunge-ethanol-idUSL2N0KD0N520140103. (Appendix XLVIII) And "Murphy USA Opens 1,200th Store; Fuel Offerings Include E15 and E85," Fuel Marketer News, Dec. 11, 2013. http://fuelmarketernews.com/murphy-usa-opens-1200th-store-fuels-include-e15-e85/ (Appendix XLIX)
[127] Wallace E. Tyner, "The Biofuels Renewable Fuel Standard at a Crossroads," PennEnergy, Nov. 18, 2013. http://www.pennenergy.com/index/blogs/energy-and-environmental-economics/2013/11/the_biofuels_renewab.html. (Appendix L)
[128] Philip K. Verleger, "Doubling World Oil Prices: The Success of International Energy Agreements," The Petroleum Economics Monthly, Vol. XXX, No. 8, Aug. 2013.
[129] Philip K. Verleger, "Commentary: Renewable Fuels Legislation Cuts Crude Prices." PKVerlegerLLC.com, Sept. 23, 2013. http://www.pkverlegerllc.com/assets/documents/130923_Commentary1.pdf (Appendix LI)

consumers has been measured in past years in ranges between $0.79 and $1.69 per gallon.[130]

## VI. Codifying the E10 blendwall is not the answer

BIO firmly believes that the limits to market access for biofuels commonly referred to collectively as the "blend wall" represent a series of barriers contrived by obligated parties[131] to prevent biofuels from gaining access to the marketplace.[132] Multiple avenues exist for blending additional volumes of biofuel into the nation's fuel supply, such as higher blends that are already approved and ready for use, and production of flex fuel vehicles. These options, combined with the introduction of new "drop-in" fuel molecules, provide a suite of opportunities for the growth of the entire biofuels industry and RFS compliance.

The main obstacle to this growth and compliance is the dilatory tactics of obligated parties to pursue the options available to them.[133] Obligated parties have had over five years to begin establishing the infrastructure necessary to distribute RFS-mandated biofuel volumes, but have taken few steps to do so. EPA should therefore resist all efforts by obligated parties to reduce RFS obligations based on blend wall claims. Any concession by EPA to accommodate these assertions regarding the blend wall will only serve to embolden obligated parties in their effort to resist compliance with the Clean Air Act.

Instead, as it is able through the proposed rule and other administrative actions, the Agency should encourage the development of biofuels. Consistent implementation of the RFS using the methodology established in prior rulemaking can readily grow the supply of biofuels in the market and overcome the blend wall by allowing RINs to reflect their market value. It will also help drive the market and encourage retailers to adopt new infrastructure.

EPA should also seek to identify opportunities to grow biofuel markets, including for drop-in biofuels. Reconsideration of the gasoline base fuel would enable engine manufacturers to optimize beneficial characteristics of biofuels in engine design, while expedited approval of new molecules would provide obligated parties with additional options for compliance not subject to blending limitations.[134]

### a. Proposed Rule would codify the E10 blendwall; inconsistent with the RFS and Congressional intent; RFS2 final rule foresaw need to break through the blendwall.

In 2007, the RFS2 volume targets were selected based on what Congress knew at the time. In debate on both the Energy Policy Act of 2005 (EPAct) and the 2007 Energy

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[130] Du, X. and Hayes, D. The Impact of Ethanol Production on U.S. and Regional Gasoline Markets: An Update to 2012. Ames, IA: Center for Agricultural and Regional Development, May 2012. http://www.card.iastate.edu/publications/dbs/pdffiles/12wp528.pdf (Appendix LII)

[131] *'Big oil' may block branded retail blender pumps: Green Plains* http://www.platts.com/RSSFeedDetailedNews/RSSFeed/Oil/8102457 (Appendix LIII)

[132] *Fill Up With Ethanol? One Obstacle is Big Oil*, http://online.wsj.com/article/SB117547886199856472.html (Appendix LIV)

[133] *Trade group requests U.S. probe of oil industry's efforts to impede renewable fuels*, *http://eenews.net/eenewspm/2013/03/19/archive/9?terms=RFA%2C+ConocoPhillips* (Appendix LV)

[134] http://www.afdc.energy.gov/fuels/emerging_dropin_biofuels.html (Appendix LVI)

Independence and Security Act (EISA)[135,136] the Blend Wall did not appear to be part of the debate. In debating EISA, the House proposed a "Study of increased consumption of ethanol-blended gasoline with higher levels of ethanol," but this was not included in the final law. However, in setting 2022 targets that represented more than 20 percent of projected fuel demand, it is clear that Congress intended the RFS to drive biofuel adoption well beyond the threshold of 10 percent of total fuel consumption. The system of RINs, credits, and compliance options articulated in the statute clearly also anticipated the role of RIN-driven market forces in achieving this broader adoption.

Following passage of EISA, EPA anticipated the blend wall when implementing the renewable fuels standard, stating "Complete saturation of the gasoline market with E10 is referred to as the ethanol 'blend wall.' The height of the blend wall in any given year is directly related to gasoline demand." This was also reflected in AEO 2009, where EIA projected that gasoline demand would peak around 2013 and then start to taper off due to vehicle fuel economy improvements. "Based on the primary ethanol growth scenario, we're forecasting under today's RFS2 program, the nation is expected to hit the 14-15 billion gallon blend wall around 2014…although it could be sooner if gasoline demand is lower than expected. It could also be lower if projected volumes of non-ethanol renewable do not materialize and ethanol usage is higher than expected." [137]

Estimates on fuel projections were also revised after the U.S. and world economy fell into a prolonged recession, reducing energy consumption. At the same time, automakers began implementing higher CAFE standards, further reducing U.S. domestic demand for fuel. As worldwide economic growth resumed, overseas demand for finished fuel products grew while U.S. demand continued to decline, prompting petroleum refiners to focus on export markets. While this confluence of developments has hastened the transition across the ethanol blend threshold, the eventual transition was clearly anticipated in the law, and should have factored into fuel distribution plans of any obligated party intending to comply with the law. Indeed, some obligated parties have adequately anticipated the blend wall by incorporating greater distribution of E85 into their business models, or by investing in development of advanced drop-in biofuels. Unfortunately, other obligated parties have elected to resist compliance and instead challenge the law itself.

**b. Codifying the E10 blendwall invites introduction of barriers to future fuels.**

We have changed our nation's fuel supply and delivery system before, such as with the transition to unleaded gasoline. The greatest challenge in that transition was that unleaded fuels cost more than leaded fuels, discouraging consumers from switching. As with the introduction of unleaded fuel, there will likely be an adjustment period with the introduction of higher blends of biofuels. However, one significant difference this time is the incumbent industry does not make the alternative fuel and has an economic interest in blocking new renewable entrants to the marketplace.

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[135] http://www.gpo.gov/fdsys/pkg/CREC-2007-12-13/pdf/CREC-2007-12-13-pt1-PgS15385.pdf (Appendix LVII)
[136] http://www.gpo.gov/fdsys/pkg/CREC-2007-12-06/pdf/CREC-2007-12-06-pt1-PgH14270-4.pdf (Appendix LVIII)
[137] CFR, Vol 78, No. 58, p. 14759

On the petroleum downstream infrastructure side, there are a number of investments that would need to be made. A major impediment to consumers having the choice of E-85 and higher blends of biofuels is obligated parties blocking station owners from putting in blender pumps that would allow consumers to choose higher biofuel blends in gasoline.[138] Blender pumps would allow consumers to modify upward the blend of biofuels they desire to purchase. In addition, marketing arrangements could incentivize the consumers to utilize the higher blends. Other forms of investment to move towards higher blends could involve even greater investment in production and proposed pipelines to move large quantities of biofuels to high-population areas.

Obligated parties and their industry representatives have slowed infrastructure upgrades by using intimidation tactics to discourage station owners from investing, fabricating misfueling concerns, and opposing incentives. The oil industry has also worked to slow the approval of higher blends and new fuels through regulatory action and litigation.[139]

## VII. EPA has regulatory flexibility to address challenges associated with the blend wall and infrastructure without decreasing biofuel volumes.

As discussed in reviewing the RIN markets, the domestic supply of biofuels will be adequate to meet the overall statutory volume of 18.15 billion gallons of renewable fuel, including 3.75 billion gallons of advanced biofuel, in 2014. There are several potential scenarios for producing and using these volumes, with flexibility in the system provided by carryover RINs from 2013 and additional capacity under construction or available for import. EPA should not limit the evaluation of the availability of advanced biofuel volumes to non-ethanol fuels, as it proposes. EPA's ongoing delays in approving advanced and cellulosic biofuel pathways hinder the biofuels industry's ability to generate sufficient RINs to meet the statutory targets.

### a. Inherent flexibility of RFS ensures sufficient compliance options. RIN prices are an incentive to exploit those options.

As was described in greater detail in BIO's analysis of the RINs markets, availability of carryover RINs provides a significant measure of flexibility in the event of a shortfall in biofuel production or in an individual obligated party's compliance. A recent analysis that attempts to gauge whether sufficient RINs will exist in 2014 for compliance with the statutory RVOs errs in assuming that production will not respond to RIN prices.

EPA should follow past practice – as supported by the USCA decision in January 2013 – to set the overall advanced RVO at the maximum achievable volume. The demonstrated existence of rollover RINs from 2013 can provide sufficient flexibility to obligated parties to meet the statutory RVO.

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[138] *Trade group requests U.S. probe of oil industry's efforts to impede renewable fuels,*http://eenews.net/eenewspm/2013/03/19/archive/9?terms=RFA%2C+ConocoPhillips (Appendix LV)
[139] *Fill Up With Ethanol? One Obstacle is Big Oil*, *http://online.wsj.com/article/SB117547886199856472.html* (Appendix LIV)

## b. Higher blends of biofuels will overcome the blendwall

Greater use of gasoline with blends between 15 percent to 85 percent of biofuels is a solution to the blend wall that involves no new technological development or regulatory approval. A recent Congressional Research Service report explains the desirability and challenges of E15 and other intermediate blends:

> For ethanol consumption to exceed the so-called blend wall and meet the RFS mandates, increased consumption at higher blending ratios is needed. For example, raising the blending limit from 10% to a higher ratio such as 15% or 20% would immediately expand the "blend wall" to somewhere in the range of 20 billion to 27 billion gallons. The U.S. ethanol industry is a strong proponent of raising the blending ratio. In response to industry concerns regarding the impending "blend wall," the EPA, after substantial vehicle testing, issued a partial waiver for gasoline that contains up to a 15% ethanol blend (E15) for use in model year 2001 or newer light-duty motor vehicles (i.e., passenger cars, light-duty trucks, and sport utility vehicles), but announced that no waiver would be granted for E15 use in model year 2000 and older light-duty motor vehicles, as well as in any motorcycles, heavy duty vehicles, or non-road engines. According to the Renewable Fuel Association (RFA), the approval of E15 use in model year 2001 and newer passenger vehicles expand[ed] eligibility to 62% of vehicles on U.S. roads at the end of 2010. In addition to the EPA waiver announcement, fuel producers will need to register the new fuel blends and submit health effects testing to EPA. Further, numerous other changes have to occur before gas stations will begin selling E15, including many approvals by states and potentially significant infrastructure changes (pumps, storage tanks, etc.). As a result, the vehicle limitation to newer models, coupled with infrastructure issues, are likely to limit rapid expansion of blending rates. Moreover, a group of engine and equipment manufacturers has challenged the partial waiver in court, arguing that EPA failed to estimate the likelihood of misfueling (using E15 in equipment denied a waiver), and the economic and environmental consequences of that misfueling.[140]

Other forms of intermediate blends, ranging from 30 percent blends to 50 percent blends, have been discussed and promoted. Most of the regulatory approval issues attendant to the 15 percent blend likewise apply to these higher intermediate blends with one distinction - there would be a need for new infrastructure investment with these higher intermediate blends. Thus the challenge to achieve these higher, intermediate blends is more daunting than perhaps other pathways.

Despite these challenges, EPA should not be limiting blending of biofuels because obligated parties have not put in the necessary infrastructure. Instead it should keep volumes at the statutory volumes to incentivize greater development of biofuels infrastructure. As examined by Bruce Babcock and Sebastien Pouliot at Iowa State University, meeting the mandate is feasible in 2014 with no new stations. The supply concern pertains to the supply of stations, not the supply of biofuels. Currently, there are about 2500 E85 stations in the U.S., about 2 percent of all stations. Increasing the

[140] Schneph, Randy and Yacobucci, Brent. 14 Mar. 2013. Renewable Fuel Standard (RFS): Overview and Issues

consumption of biofuels beyond10 percent levels can be accomplished by increasing the number of stations that sell the fuel. If the increased mandates wait for an increase in infrastructure, such as E85 pumps to be built, the mandates will never increase.

EPA should look to work with obligated parties to get greater volumes of biofuels out on the market and work with retailers to better educate consumers on what options are available for them at the pump. However, reducing the volumes in 2014 based of supply infrastructure not only exceeds EPA's authority, as discussed earlier, but also run counter to the overall goal of getting biofuels on the market.[141]

### c. Infrastructure beyond the RFS

The most effective driver in the development of infrastructure to deliver greater volumes of biofuels is the RFS and an effective RINs market that is driven by market fundamentals. However, additional programs can help spur the development of infrastructure.

The U.S. Department of Agriculture has made use of the Rural Energy for America Program (REAP) under the Farm Bill to help spread the development of blender pumps. As announced by Secretary Tom Vilsack, USDA had a goal to install 10,000 blender pumps.[142] As stated by Secretary Vilsack, "As part of President Obama's 'all of the above' energy strategy, USDA has partnered with thousands of America's farmers, ranchers and rural businesses to help them save energy and improve their bottom line.[143]"

Unfortunately, despite USDA's efforts to develop the infrastructure necessary for higher blends for biofuels, these efforts have faced significant opposition from incumbents[144] and Congress has blocked use of the program for these purposes. BIO would encourage EPA and the Administration to explore other options for spurring development of infrastructure, but it should maintain the RFS as is, since it has the greatest capability of driving infrastructure development.

[141] Babcock, Bruce; Pouliot, Sebastien. 2014 Jan. Center for Agricultural and Rural Development, Iowa State University. "Feasibility and Cost of Increasing U.S. Ethanol Consumption Beyond E10." available at: http://www.card.iastate.edu/publications/synopsis.aspx?id=1217 (Appendix LIX)

[142] Renewable Fuels Association. 4 Apr 2013. USDA Accepting REAP Fund Apps for Blender Pump Installation, BYO Ethanol Offers Free Gran Services. available at: http://www.ethanolrfa.org/news/entry/usda-accepting-reap-fund-apps/ (Appendix LX)

[143] Jessen, Holly. "REAP grants include money for blender pumps." 22 Oct 2012. Ethanol Producer Magazine. Available at: http://ethanolproducer.com/articles/9229/reap-grants-include-money-for-blender-pumps

[144] Clayton, Christ. 19 Feb. 2011. DTN The Progressive Farmer "House Votes Against Money for E15, Blender Pumps, EPA." available at: http://www.dtnprogressivefarmer.com/dtnag/view/ag/printablePage.do?ID=BLOG_PRINTABLE_PAGE&bypassCache=true&pageLayout=v4&blogHandle=policy&blogEntryId=8a82c0bc2da1a99e012e3ec7a8b3072f&articleTitle=House+Votes+Against+Money+for+E15%2C+Blender+Pumps%2C+EPA&editionName=DTNAgFreeSiteOnline (Appendix LXI)

### d. Increasing blends of biofuels will help meet CAFE and Tier 3 goals.

As BIO explained in its comments on EPA's Proposed Rule on "Control of Air Pollution from Motor Vehicles: Tier 3 Motor Vehicle Emission and Fuel Standards,"[145] the final Tier 3 rule has the potential to continue the progress of the biofuels industry and help alleviate the blend wall. EPA should work to finalize its Tier 3 rulemaking and set the emissions test fuel to encourage further investment and adoption of biofuels, including advanced drop-in biofuels, ethanol and other fuel molecules. Encouraging biofuels, including higher blends of ethanol and drop-in biofuels, would help meet EPA's overall goal in this rulemaking to address the impacts of motor vehicles and fuels on air quality and public health.[146] For instance, advanced drop-in biofuels have the same molecular make-up of traditional petroleum-based fuels, but they contain little or no sulfur and have significantly reduced GHGs. In addition, ethanol combusts without producing air toxics, which are the main source of particulate matter. Blending ethanol in gasoline also reduces the need for unhealthy detergent additives which are mandated to reduce the formation of engine deposits from gasoline that increase exhaust emissions and result in the loss of fuel economy and performance. These benefits of biofuels only rise with higher blends. BIO encourages EPA to issue a final rule that maximizes investment and adoption of all biofuels, including higher blends and drop-ins.

### e. Increased investment in advanced drop-in fuels. Many drop-in solutions are at the cusp of commercialization.

Economics will dictate the best solution to the blend wall, and a combination of many different ways for biofuels to enter the marketplace may be required. One potential key path to address the blend wall is to increase investment in and development of "drop-in biofuels," which have the same properties and composition as petroleum-based fuels and may be used in existing infrastructure. Because of these factors, existing downstream petroleum infrastructure and engines can run on these fuels even at blends beyond 10 percent. These biofuels, including biobutanol, may be produced from any biomass and blended using existing infrastructure at blends much higher than 10 percent. Due to biobutanol's higher energy content this is equivalent to 21 percent ethanol. Biobutanol has been endorsed by the National Marine Manufacturers Association.

The primary challenge for drop-in biofuels is scale, but this could be addressed with greater investment in this technology (which is driven by the stability of the RFS policy). Certainly as one option to address the blend wall, drop-ins have some very attractive features: they require no change in existing infrastructure and are feedstock flexible and may be produced from both starch and sugar-based biomass sources. In addition, existing ethanol facilities may be cost-effectively retrofit to produce biobutanol and other drop-in biofuels.

The expansion of aviation biofuels as drop-ins would be another potential solution to the blend-wall. Currently, sustainable aviation biofuels, derived from biomass-based plant

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[145] Environmental Protection Agency, Control of Air Pollution from Motor Vehicles: Tier 3 Motor Vehicle Emission and Fuel Standards, 78 Fed. Reg. 29,816 (proposed May 21, 2013) (to be codified at 40 CFR Pts. 79, 80, 85,600, 1036, 1037, 1065 and 1066), available at https://www.federalregister.gov/articles/2013/05/21/2013-08500/control-of-air-pollution-from-motor-vehicles-tier-3-motor-vehicle-emission-and-fuel-standards).
[146] The Proposed Rule at 29816.

material and waste fats, are approved for use in jet engines in an up to 50 percent blend. This fuel is a drop-in substitute for fossil-based petroleum currently used in aviation. Some commercial airlines have flown test flights on blends of sustainable aviation fuel, and aviation is well-suited for rapid deployment of drop-in biofuels. The commercial aviation industry has system-wide advantages including the ability to use current infrastructure: drop-in biofuels utilize the same pipelines and tanks as petroleum. It also has highly concentrated nodes of supply and demand, where the largest 40 U.S. airports account for more than 90 percent of jet fuel used by commercial aviation. Thus, if sustainable aviation biofuel producer can deliver to the 40 large airports, in a cost effective manner, they will have access to a large portion of the commercial jet-fuel market.

#### f. Extend obligations for all gasoline and diesel to parties who supply finished transportation fuels to retail outlets or to wholesale purchaser=consumer facilities

To the extent the Agency does not believe the other options for regulatory flexibility under the RFS are substantial enough to maintain the statutory levels of biofuel volumes while addressing the challenges associated with the blend wall and infrastructure, it should consider extending the obligations for all gasoline and diesel to parties who supply finished transportation fuels to retail outlets or to wholesale purchaser-consumer facilities. EPA considered this option in its *2010 Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program*. The agency rejected such an approach at that time because of differences between obligated parties and the view that the concerns expressed "do not…warrant a change to obligated parties for the RFS2 program at this time." At the time EPA, stated it would, "continue to evaluate the functionality of the RIN market. Should [it] determine that the RIN market is not operating as intended, driving up prices for obligated parties and fuel prices for consumers, [it would] consider revisiting this provision in future regulatory efforts."[147]

While it is BIO's contention that the RIN market is operating as it should, driving the investment in greater biofuels use and infrastructure, to the extent the agency believes there is inequity in the impacts of the current RFS obligations, it would be worth the agency exploring this methodology as a possible mechanism to address such inequity, instead of enacting the methodology proposed in this rule that will limit any future biofuels growth.

### VIII. EPA should not inhibit investment and job creation in the biofuels industry, or risk energy independence and environmental gains by reducing overall and advanced RVOs

The advanced biofuel industry has invested more than $5.9 billion in scaling up production capacity for advanced and cellulosic biofuels. This is still a fraction of the investment necessary to deploy commercial production capacity for these fuels. Ongoing investment and capacity building depends on growth in the potential market for these fuels. Enshrining in regulatory policy a market barrier to using these fuels blocks potential growth and will curtail investment.

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[147] 2010 Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program, 75 Fed. Reg. 58, 14721-14722 (Finalized March 26, 2010) (codified at 40 C.F.R. pt. 80) available at: http://www.gpo.gov/fdsys/pkg/FR-2010-03-26/pdf/2010-3851.pdf

### a. The RFS and EPA's consistent implementation are fundamental drivers of biofuels investment

The value proposition for cellulosic and other early stage advanced biofuels is derived both from the price of the commodity fuel and the cost of meeting the RVO. Congress created a specific RVO for cellulosic biofuel, denoting its development as a national priority; but it nested this RVO within the advanced and overall RVOs, denoting that growth of the cellulosic industry was far from certain. The cost of meeting each nested RVO is determined by alternative compliance options. The cellulosic RVO has a unique compliance option, which is the purchase of a cellulosic waiver credit and a replacement qualifying gallon of advanced biofuel.

The cost of the cellulosic waiver credit is determined each year by the average wholesale price of gasoline. It is set as the higher value of $3.00 minus the AWP of gasoline or $0.25 per gallon (adjusted for inflation from the 2008 base). This mechanism ensures that cellulosic biofuels will be cost-competitive with petroleum fuels when they are brought to market. As the annual AWP of gasoline has approached the $3.00 mark, the cost of the cellulosic waiver credit has approached the minimum cost. The cost of a waiver credit for the 2013 cellulosic RVO, which is due in June 2014, is $0.42. Average wholesale gasoline prices in 2013 appear to be similar to or slightly lower than prices in 2012. Therefore the price of the cellulosic waiver credit should remain consistent.

When an obligated party uses a waiver credit to meet their cellulosic RVO, they must also retire an advanced biofuel RIN – either D4 or D5. The average price of a 2013 vintage D4 RIN during 2013 was $0.75, with a minimum price of $0.24 November and a maximum of $1.47 in July, according to the Oil Price Information Service. The average price of a 2013 vintage D5 RIN during 2013 was $0.73, with a minimum price of $0.22 in November and a maximum of $1.47 July. An obligated party using the waiver credits for compliance with the 2013 RVO would face a minimum cost of $0.64 per gallon, or an average cost of $1.15. This mechanism helps ensure that cellulosic biofuels will also be cost-competitive with other advanced biofuels in the early stages of cellulosic biofuel deployment.

The variation in pricing of advanced biofuel RINs throughout the year causes variations in the calculus of purchasing cellulosic biofuel with attached RINs. During July, the cost of the alternative compliance option for the cellulosic RVO appeared to be $1.89 per gallon, which would make investment in building cellulosic biofuel capacity highly attractive. Consistent implementation of the rules over a longer time period is necessary to maintain long-term interest in investing in the production of these fuels.

Companies rely on the RFS structure as a guarantee that there will be market space for the fuels and that the cost will be competitive both with petroleum gasoline and other advanced biofuels.

#### i. Investment in cellulosic biofuels will decline under EPA's proposal

Since production of cellulosic biofuels remains at an early commercial scale, dominated by first-of-a-kind biorefineries, the production costs for initial volumes remains high. The costs of building and engineering first-of-a-kind biorefineries while continuing research and development of cellulosic biofuels are borne by investors in the cellulosic biofuel companies. Markets for new agricultural feedstocks are also being developed by farmers, in cooperation with land grant universities and the U.S. Department of Energy. These large investments are made with the expectation of wider commercialization of the technology and the ability to recoup investments over the long term. Wider commercialization, which requires further capital investment, will only occur if investors have a reasonable assurance that the market will be open to increasing volumes of biofuels.

EPA must propose a cellulosic biofuel RVO that reflects a projection of what will happen in the market during 2014 as accurately as possible. However, as with other government projections, EPA's projection can influence the market and determine what actually happens during 2014. If EPA reduces the advanced biofuel requirement to a level well below proven production and use, as it proposes, it will significantly reduce the cost of the alternative method of complying with the cellulosic biofuel RVO and discourage production of cellulosic biofuels. Similarly, if EPA limits the portion of the RVOs that can be met with ethanol, by codifying the blendwall, the agency will discourage the use of cellulosic ethanol – by forcing it to directly compete for limited market space with lower-cost volumes of conventional ethanol that benefit from more mature technology and economies of scale.

EPA's prior decision to leave the 2012 cellulosic RVO at zero, following the Court order,[148] and proposal to vacate the cellulosic RVO for 2011[149] create uncertainty about the annual obligation over multiple years. EPA is forced to vacate the cellulosic RVO for 2011 because some obligated parties elected to defer their 2011 RVO to 2012; there were 1,741 valid 2012 vintage cellulosic RINs available for parties to meet the combined obligations for 2011 and 2012, which was clearly inadequate. It is apparent that the shortfall in cellulosic RIN generation in 2013 could cause similar compliance challenges in 2014, should obligated parties elect to defer portions of their 2013 obligation. Sufficient RINs to meet both 2014 RVOs and deferred 2013 RVOs would be required during 2014.

#### ii. Without conventional and advanced volumes, cellulosic biofuels will not come to fruition

Production and use of conventional biofuels and biodiesel currently represent the lowest cost methods for meeting the annual RVOs, particularly when compared with multi-year investments in cellulosic and other advanced biofuels. Importation of advanced ethanol with D5 RINs also remains a lower-cost compliance alternative, though its cost exceeds the cost of BBD use. Importation of advanced ethanol spiked in July and August of 2013 as D4 and D6 RIN values climbed, but quickly declined again.

<u>Since cellulosic biofuels will also consist of ethanol and renewable diesel, greater market acceptance of E15 and E85 as well as renewable diesel blends are just as important for cellulosic biofuels</u>. The conventional and biodiesel industries are expanding market space and acceptance for these fuels, which in the future are expected to be filled by cost-competitive cellulosics.

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[148] Fed. Reg. 78(158), Thurs. Aug. 15, 2013.
[149] Fed. Reg. 78(230), Fri. Nov. 29, 2013. P.71751.

**b. EPA's proposed rule puts $5.9 billion investment and nearly 8,000 jobs at risk**

BIO has tracked publicly available data on ongoing cellulosic and advanced biofuel projects, including the total amount of private investment and jobs created. To date, more than $5.9 billion has been invested within the United States by private investors in pilot, demonstration and commercial facilities.[150] Some of these facilities are currently under construction or in early stages of planning. The list does not include facilities that are no longer in development, including a few pilot facilities that ceased operation or projects that were discontinued.

The projects currently employ or promise to employ more than 7,900 people on a full time, ongoing basis. Further, construction of these facilities has created or will create an additional 8,600 jobs on a short-term basis.

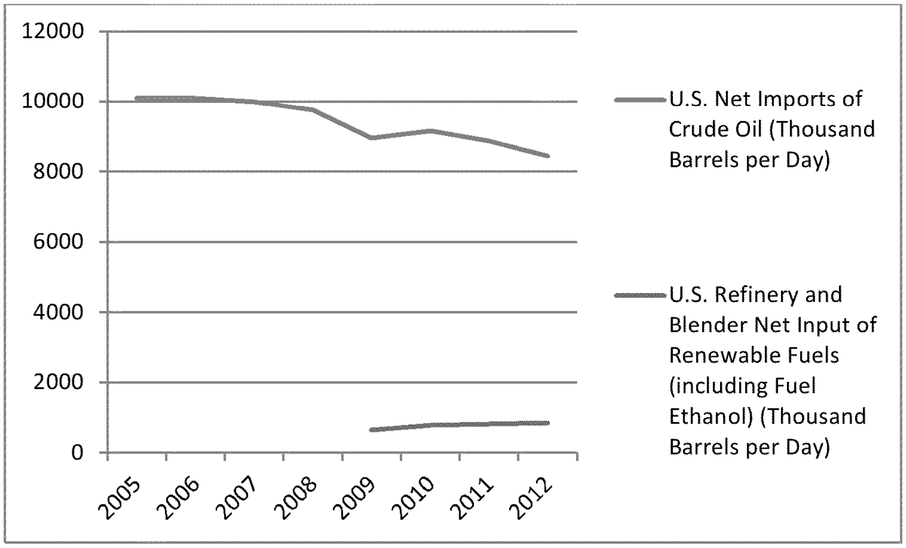
**c. Biofuel production has helped reduce U.S. foreign oil imports**

Since the start of the RFS, the use of renewable fuel has helped to displace the importation of petroleum. While demand for gasoline is declining and expected to decline over the long term, demand for diesel fuel is increasing. Further, the RFS allows other types of fuels – jet fuels, naphtha and home heating oil – to generate RINs, providing new opportunities to displace foreign oil.

The U.S. Energy Information Administration's November 2013 Short Term Energy Outlook projects 2014 gasoline demand of 133.2 billion gallons, including 13.35 billion gallons of ethanol by volume, and petroleum diesel consumption of 55.3 billion gallons.[151] EIA also notes that gasoline consumption increased during 2013 by 1.2 percent, while diesel consumption grew by 2.5 percent.[152] EIA further projects gasoline consumption to remain flat, with a 0.1 percent decline, while diesel consumption increases by 1.2 percent. <u>EPA's proposal to reduce the RVOs for renewable fuels in 2014 below the RVOs for 2013 would require the United States to use more oil in 2014 than in 2013.</u>

[150] BIO data. (Appendix LXII)
[151] "EPA proposes 2014 Renewable Fuel Standard, with EIA to provide input to the final rule," This Week In Petroleum, Nov. 20, 2013.
[152] EIA, Short Term Energy Outlook, Jan. 2014. http://www.eia.gov/forecasts/steo/pdf/steo_full.pdf. (Appendix LXIII)

Figure 9: Oil imports have been displaced by renewable fuels




Source: EIA

### d. EPA's proposal will increase greenhouse gas emissions in 2014; methodology establishes precedent for substantial foregone reductions through 2022

The greenhouse gas intensity of petroleum fuels, measured in carbon dioxide equivalents ($CO_2e$), has grown worse since 2007.[153] Nevertheless, the 2007 baseline for these fuels remains enshrined in the RFS and all renewable fuels are required to demonstrate a reduction in greenhouse gases compared to this baseline. The intent of the RFS was to ensure that biofuels reduced U.S. transportation sector emissions of greenhouse gases from the 2007 level. Biofuels have a clear incentive to improve their greenhouse gas intensity.

By lowering the overall and advanced RVOs relative to 2013, the proposed rule would, if implemented, result in the use of additional petroleum in 2014 compared to 2013, and automatically increase greenhouse gas emissions. EPA's proposal results in an estimated increase of 6.1 million metric tons of $CO_2e$ compared to 2013 [see Table 1]. This represents a mandated increase of over 27 million metric tons of $CO_2e$ relative to statutory levels. The net increase in $CO_2e$ emissions resulting from the proposed rule is equivalent to adding 5.6 million additional vehicles to the roads. The table below assumes EPA estimates for the greenhouse gas intensities of various biofuel options, but 2012 greenhouse gas intensities for gasoline and diesel blendstocks estimated by Wang and colleagues.

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153 Wang, M., J. Han, J. Dunn, H. Cai, and A. Elgowainy, 2012, "Well-to-Wheels Energy Use and Greenhouse Gas Emissions of Ethanol from Corn, Sugarcane and Cellulosic Biomass for US Use," Environmental Research Letter, 7 (2012) 045905 (13pp)

Table 1: Greenhouse Gas Emissions for 2013 and Estimates for 2014 Under Proposed Rule

| Source of Emissions | GHG Emissions/Year | | | Changes in GHG Emissions from 2013 (thousand tonnes $CO_2e$) | |
|---|---|---|---|---|---|
| | 2013 | 2014 | 2014 | 2014 | 2014 |
| | | Proposed RFS | Legislated RFS | Proposed RFS | Legislated RFS |
| **Gasoline blendstock** | 1,394,363 | 1,387,719 | 1,345,929 | -6,643 | -48,434 |
| **Petroleum diesel** | 685,039 | 704,068 | 704,068 | 19,029 | 19,029 |
| **Ethanol/ Conventional Biofuel: corn ethanol** | 81,651 | 76,917 | 85,201 | -4,733 | 3,550 |
| **Biomass-based Diesel: soybean biodiesel** | 6,456 | 6,456 | 6,456 | 0 | 0 |
| **Unspecified advanced biofuel: Brazilian sugarcane ethanol** | 2,313 | 704 | 7,165 | -1,609 | 4,852 |
| **Cellulosic biofuel: corn stover ethanol** | -13 | 18 | 18 | 12 | 12 |
| **Total** | 2,169,809 | 2,175,883 | 2,148,837 | 6,055 | -20,992 |

Source: BIO

According to a recent analysis using similar assumptions[154], if EPA's proposed new methodology is applied in 2022, when statutory levels of biofuel use reach 36 billion gallons, the country will forego additional emission reductions in 2022 of more than 168 million metric tons $CO_2$e relative to previously established methodology (i.e. cellulosic volumes adjusted, but overall and advanced volumes maintained.) This is equivalent to the emissions of more than 35 million additional vehicles in 2022. Cumulative foregone emissions reductions over the period 2014-2022 approach 1 billion metric tons $CO_2$e. EPA's proposal reduces emissions from conventional ethanol and holds stable emissions from biodiesel by limiting their use. However, it cuts short the emission reduction potential of additional advanced biofuels by limiting market space for them and guaranteeing more market space for petroleum fuels.

The increase in emissions has a social cost. According to the Interagency Working Group on Social Cost of Carbon, that cost is approximately $37 per ton.[155] The 27 million ton net increase in CO2e emissions next year caused by EPA's proposal would come at cost of $999 million to the United States. The emissions and social costs compound over time. EIA projects an increase in gasoline use in 2015, before consumption declines through 2022. Diesel consumption rises slowly through 2022, from 55.2 billion gallons in 2014 to 61.5 billion gallons in 2022, according to EIA.[156] If EPA implements its new methodology for determining volumes of biofuel under the RFS, and cellulosic biofuel investment is undercut, the increases in diesel consumption will result in increased petroleum (above 2013 volumes) use through 2019. As a result, GHG emissions will spike in 2015 and 2016, returning to levels below 2013 only after 2019. By maintaining the statutory levels of renewable fuel use, EPA can ensure that U.S. emissions from the transportation sector remain below 2013 levels and rapidly decline through 2022.

**a. RIN prices do not relate the costs of reducing greenhouse gas emissions**

In interagency comments on the draft proposed rule, Council of Economic Advisers reviewers suggest that the price of RINs be evaluated as the cost of reducing greenhouse gas emissions by displacing petroleum with biofuels.[157] The reviewers suggest that the calculation for biodiesel should include both the higher cost of biodiesel and the cost of the D4 RIN. However, this is incorrect. RINs could, in limited circumstances, help recoup a portion of the costs of substituting a higher priced renewable fuel for petroleum, but not indefinitely. A simple back of the envelope calculation of the portion of a RIN price that correlates to the value of reducing greenhouse gas emissions would be:

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[154] Winters, P. "Estimating GHG Emissions from Proposed Changes to the Renewable Fuel Standard through 2022." Unpublished paper, Jan. 2014. (Appendix LXIV)
[155] Interagency Working Group on Social Cost of Carbon, Technical Support Document: -- Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis – Under Executive Order 12866, Rev. Nov. 2013. Using the 3% discount rate average.
[156] U.S. Energy Information Administration, Annual Energy Outlook 2014 Early Release, Report No.: DOE/EIA-0383ER(2014), Dec. 16, 2013.
[157] Interagency comments Part 1: Comments on the 8/26/13 version of the NPRM, provided by OMB and representing interagency review, http://www.regulations.gov/contentStreamer?objectId=0900006481488e91&disposition=attachment&contentType=pdf (Appendix LXVI)

*RIN = (SR x GHG) x SCC*

*Where*

*RIN = dollar price of RINs*
*SR = statutory reduction percentage for the type of RIN*

*D3 = 0.6*
*D4 = 0.5*
*D5 = 0.5*
*D6 = 0.2*
*D7 = 0.6*

*GHG = the emissions from gasoline or diesel in tons/gallon*
*And SCC = the social cost of carbon per ton.*

By this measure, the use of corn ethanol has been a bargain for the United States and for obligated parties since 2008, since the RIN price was substantially below the social cost of carbon per gallon of gasoline.

The calculation above and in the comments does not include the value of reducing imports of oil, another goal of the RFS and one that is not included in the social cost of carbon. Verleger estimates this value at $15 per barrel.[158] Additional estimates of the social benefits of reducing petroleum use – such as reduced military spending to protect oil trade routes – could be included in the overall calculation.

Further, there is no basis for utilizing such a calculation in the statute. Congress in fact included limits on the price of D3 and D7 RINs by establishing the cellulosic waiver credit. The value is set against the wholesale price of gasoline.

The suggestion to calculate RIN prices along these lines follows from an incorrect premise that RIN prices represent the cost to refiners of including renewable fuels in the fuel supply. RIN prices are instead determined by supply and demand, where demand is determined by the RVO and supply is determined by the blending of biofuels. The price of RINs, therefore, can be seen as the cost of complying with the law without actually including renewable fuels in the fuel supply.

## IX. Conclusion

The RFS is the nation's only long term energy policy. The current RFS goals from the 2007 EISA have only been in place for five-years – just one-third of the Standard's 15 year ramp up. Unfortunately, implementation of the standard has been slowed – not just by the economic downturn beginning in 2008, but by a number of regulatory delays, including EPA's 2013 rulemaking and approval of new pathways for cellulosic and advanced biofuels.

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[158] Philip K. Verleger, "Commentary: Renewable Fuels Legislation Cuts Crude Prices." PKVerlegerLLC.com, Sept. 23, 2013. http://www.pkverlegerllc.com/assets/documents/130923_Commentary1.pdf (Appendix LI)

If EPA were to finalize the proposed rule, it would be ignoring its own past precedent on the RFS and the clear language in the statute. The reductions in this proposed rule would have a detrimental impact on the nation's economy, in particular in small rural communities where biofuel facilities provide high skill jobs. It also puts the Nation's energy security at risk, by increasing our dependence on dirtier, foreign sources of oil. The rule will also have an adverse impact on the environment by increasing greenhouse gas emissions through the use of more oil, which is becoming dirtier due to its composition and more difficult extraction methods.

There are several solutions to the blend wall, including the use of higher blends of biofuels, greater distribution of biofuels, increased production of flex fuel vehicles, and greater use of drop-in fuels. Market economics under the RFS program are already driving investment in each of these options, and the EPA can anticipate a rapid increase in availability of both higher ethanol blends and drop-in alternatives as a result – but only to the extent obligated parties provide market access to these fuels. Unfortunately, many of these solutions are currently unattainable due to barriers to the marketplace erected by obligated parties. To overcome these barriers, EPA must maintain the RVOs under the RFS. Lowering mandated volumes would remove any market pressure to utilize higher blends of biofuels and drive investment in the infrastructure necessary to deliver these fuels. If the RFS is allowed to function, consumers will benefit with cheaper, cleaner fuels at the pump, and the nation as a whole will benefit from a domestically produced fuel that reduces GHG emissions and does not come from volatile parts of the world.

Sincerely,

Brent Erickson
Executive Vice President
Industrial and Environmental Section
Biotechnology Industry Organization

Biotechnology Industry Organization

January 28, 2014

The Honorable Gina McCarthy
Administrator, Environmental Protection Agency
Air and Radiation Docket and Information Center
Mailcode: 2822T
1200 Pennsylvania Avenue NW
Washington, DC 20460

**Docket ID No. EPA-HQ-OAR-2013-0747**

Dear Administrator McCarthy:

In response to the U.S. Environmental Protection Agency's (EPA) request for comments on petitions for a waiver of the renewable fuel standards (RFS) that would apply in 2014[1], the Biotechnology Industry Organization (BIO) is pleased to have the opportunity to comment on the substance of these petitions.

BIO urges the Administrator to reject the number of petitions for a waiver of the renewable fuel standards that would apply in 2014. BIO's rational for this rejection can be found in the following documents:

- Section II and III of BIO's comments on EPA's Proposed Rule on the 2014 Standards for the RFS Program[2] (Appendix I);
- BIO's September 24, 2013, letter to EPA urging it to deny the joint petition filed by the American Petroleum Institute and American Fuel and Petrochemical Manufacturers requesting the EPA grant a partial waiver of the 2014 applicable volumes of the RFS[3] (Appendix II);
- BIO's October 24, 2013, letter to EPA urging it to reject the petition filed by Valero Energy Corporation requesting EPA to waive required volume obligations under the RFS[4] (Appendix III)

Sincerely,

Brent Erickson
Executive Vice President, Industrial and Environmental Section

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[1] EPA Seeks Comment on Petitions for a Waiver of the Renewable Fuel Standards that would Apply in 2014, 78 Fed. Reg. 230, 71607 (proposed Nov. 29, 2013) (available at: http://www.gpo.gov/fdsys/pkg/FR-2013-11-29/pdf/2013-28301.pdf)
[2] 2014 Standards for the Renewable Fuel Standard Program, 78 Fed. Reg. 230, 71732 (proposed Nov. 29, 2013) (to be codified at 40 C.F.R. pt. 80) (available at: http://www.gpo.gov/fdsys/pkg/FR-2013-11-29/pdf/2013-28155.pdf) [hereinafter *The Proposed Rule*].
[3] Letter from the American Fuel & Petrochemical Manufacturers and American Petroleum Institute to U.S. Environmental Protection Agency Administrator Gina McCarthy, August 13, 2013, available at: http://www.api.org/news-and-media/~/media/Files/News/2013/13-August/RFS-Waiver-Petition.pdf
[4] Letter from Valero Chief Executive Officer and Chairman of the Board William R. Klesse to Environmental Protection Agency Administrator Gina McCarthy, September 9, 2013 (Appendix IV)

1201 Maryland Avenue SW
Suite 900
Washington DC 20024
202.962.9200 P
202.488.6301 F
bio.org

Biotechnology Industry Organization

September 24, 2013

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Administrator McCarthy:

On behalf of the members of the Biotechnology Industry Organization (BIO), which include advanced and cellulosic biofuels producers, we are writing to urge the U.S. Environmental Protection Agency (EPA) to deny the joint petition recently filed by the American Petroleum Institute (API) and American Fuel and Petrochemical Manufacturers (AFPM) (together "petitioners") requesting the EPA grant a partial waiver of the 2014 applicable volumes of the federal Renewable Fuel Standard (RFS) pursuant to section 211(o)(7)(A) of the Clean Air Act (CAA)[1] (hereinafter "joint petition").

BIO is the world's largest biotechnology organization, with more than 1,100 member companies worldwide. BIO represents leading technology companies in the production of conventional and advanced biofuels and other sustainable solutions to energy and climate change. BIO also represents the leaders in developing new crop technologies for food, feed, fiber, and fuel.

BIO urges the EPA to deny the joint petition for several reasons. First, the petitioners do not meet the requirements to file the joint petition. The joint petition is also premature. The petitioners cannot demonstrate harm when the 2014 renewable volume obligations (RVOs) have not even been formally proposed. Moreover, most of the harm they predict would be the direct result of dilatory tactics demonstrated generally by many petroleum companies and refiners, member companies of the petitioners, and other obligated parties since the start of the RFS. These tactics are designed to chill investment and thwart the policy goal to encourage greater use of renewable fuels in the United States.[2]

The 2014 RVOs should be set as always through the use of the best market information possible to, as accurately as possible, determine projected production and supply availability. Following this process, there are a number of compliance options for 2014. In addition, contrary to petitioners' arguments, there are solutions to the blend wall, including the use of higher blends of biofuels, greater distribution of biofuels, increased production of flex fuel vehicles, and greater use of drop-in fuels.

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[1] Letter from the American Fuel & Petrochemical Manufacturers and American Petroleum Institute to U.S. Environmental Protection Agency Administrator Gina McCarthy, August 13, 2013, at 1 [Hereinafter "The Joint Petition"].
[2] *Trade group requests U.S. probe of oil industry's efforts to impede renewable fuels,* http://eenews.net/eenewspm/2013/03/19/archive/9?terms=RFA%2C+ConocoPhillips

1201 Maryland Avenue SW
Suite 900
Washington DC 20024
202.962.9200 P
202.488.6301 F
bio.org

I. API and AFPM Do Not Meet the Requirements Under the RFS to File the Joint Petition

EPA should deny the joint petition because API and AFPM do not meet the requirements under the RFS to file such a petition. Under Section 211(o)(7)(A) of the Clean Air Act, such a petition may only be filed by "one or more States, ... any person subject to the requirements of this subsection, or ... the Administrator on his own motion."[3] Here, neither API nor AFPM are subject to the RFS requirements, so they do not meet the criteria to qualify to file a petition to EPA to waive all or part of those requirements. The plain language of the statute makes it clear that these trade associations may not request waivers of all or part of the annual RFS requirements. Therefore, EPA should deny their joint petition.

II. The Joint Petition is Not Ripe

In addition, EPA should deny the joint petition because it and the relief it requests are premature. It is absurd for the petitioners to request a partial waiver of the 2014 RVOs before they even know the 2014 RFS RVOs that EPA will propose. The joint petition has been filed before EPA has even issued its proposed rule setting the 2014 RFS RVOs. It is not appropriate for petitioners to try to unduly influence the 2014 RVOs outside of the established regulatory process. Therefore, any arguments petitioners wish to make should be filed during the public comment period after EPA issues its proposed 2014 RFS rule.

Moreover, in its 2013 RFS final rule, EPA has already indicated that it is aware of the petitioners exaggerated claims and, if needed, may make appropriate adjustments to the 2014 RFS RVOs.[4] Here, the petitioners are requesting relief from the 2014 statutory RVOs when they know that EPA makes annual adjustments to them based on market and supply realities and when EPA has already committed to making appropriate adjustments. The petitioners should wait to see the proposed 2014 RVOs and attempt to influence them during the public comment period.

III. The Joint Petition Misconstrues the RFS, its Goals and the Suite of Options for Compliance

Under Section 211(o)(7)(a) of the Clean Air Act, the Administrator may waive RFS RVO obligations in whole or in part, *after public notice and opportunity to comment*, if she determines that (1) implementation of the requirements would severely harm the economy or environment of a State, a region, or the United States, or (2) that there is an inadequate domestic supply.[5] Petitioners turn the statute's language on its head to argue that blend wall concerns will reduce the RINs available for RFS compliance, forcing refiners to restrict the domestic supply of fuel, which will then impose devastating costs on consumers and thus severely harm the U.S. economy. The reality is that because they have blocked investment in infrastructure and created marketing challenges for higher blends of biofuels, the petitioners are now requesting the Administrator waive the 2014 RVOs to 9.7 percent of

[3] Clean Air Act, 42 U.S.C. § 7545(o)(7)(A), [hereinafter "CAA"].
[4] *Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards; Final Rule*, Environmental Protection Agency, 78 Fed. Reg.158, 49794, 49798, Aug. 15, 2013, available at: http://www.gpo.gov/fdsys/pkg/FR-2013-08-15/pdf/2013-19557.pdf. [Hereinafter, "the 2013 RFS Final Rule"].
[5] CAA, 42 U.S.C. §7545(o)(7)(A).

the domestic fuel supply. They created the very situation from which they are requesting relief.

Multiple compliance options exist for petitioners' members. Simply stated, the reason for petitioners' concern about any lack of availability of sufficient RINs is due to the continuing dilatory tactics of obligated parties not to prepare for the blend wall transition. This situation was anticipated at the outset of RFS implementation, nearly five years ago. It is not because of "constraints imposed by fueling infrastructure and problems of gasoline engine incompatibility." In fact, there are a host of RFS compliance choices explained in detail below, which taken together provide obligated parties sufficient flexibility and time to plan compliance strategies for 2014 and beyond. Since these compliance options exist, obligated parties have sufficient tools to plan ahead for the accumulation of RINs to meet their 2014 RFS RVOs. While some individual refiners may choose to restrict U.S. fuel supply as a compliance strategy, market competition and the increasing production of biofuels will work in tandem so such a restriction will not harm the U.S. economy or consumers.

Below, please find a more detailed discussion of the realities of the so-called blend wall and the suite of RFS compliance options that exist for petitioners' members.

Petitioners in the joint petition define the blend wall as "the point at which the RFS attempts to force the use of more renewable fuels than can be consumed in the United States, due to fundamental constraints imposed by fueling infrastructure and problems of gasoline engine incompatibility."[6] They further describe the blend wall as unavoidable under the *statutory* RFS volumes.[7]

This definition, and the suggested *unavoidable* inevitability that flows from it, is simply a complete fabrication that the obligated parties and their leading voices are using to try to break the RFS. The limits to market access for biofuels through the anticipated "blend wall" represent a series of barriers contrived by the oil refining industry to prevent biofuels from gaining access to the marketplace.[8] The RFS is not attempting to force more renewable fuels than *can* be consumed in the United States, as petitioners assert[9]; it is attempting to force a reduction of reliance on foreign oil, and it is working. Further, EPA's annual rulemakings on RVOs based on actual projected production helps control the situation so the RFS does not force consumption of more renewable fuels than can be produced.
The fact is that the blend wall is not due to infrastructure and engine constraints, but rather as we state above and throughout this letter, it is due to the ongoing dilatory and anticompetitive tactics of the oil refining industry. Obligated parties have had more than five years to begin establishing the infrastructure necessary to distribute RFS-mandated fuel volumes, but have taken few steps to do so. Their assertions that the blend wall is prohibitive to distribution of greater volumes of biofuels only seek to undermine the development of homegrown biofuels that promote America's energy security, the biobased economy, and rural development.

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[6] *See* The Joint Petition at 1-2
[7] *Id* at 2.
[8] *Fill Up With Ethanol? One Obstacle is Big Oil*, http://online.wsj.com/article/SB117547886199856472.html
[9] See The Joint Petition at 1.

A. Obligated Parties Have Chosen Not to Prepare for the Anticipated Blend Wall Transition

Congress first passed the RFS in 2005, and enhanced it and its target volumes of renewable fuels in 2007. In setting the 2022 targets that represented more than 20 percent of projected fuel demand, it is clear that Congress intended the RFS to drive biofuel adoption well beyond the threshold of 10 percent of total fuel consumption. The system of credits and other compliance options articulated in the RFS statute clearly also anticipated the role of RIN-driven market forces in achieving this broader adoption.

Following passage of the Energy Independence and Security Act of 2007 (EISA), EPA anticipated the blend wall when implementing the RFS, stating that "…[c]omplete saturation of the gasoline market with E10 is referred to as the ethanol "blend wall."[10] The height of the blend wall in any given year is directly related to gasoline demand. This was also reflected in AEO 2009, where EIA projected that gasoline demand would peak around 2013 and then start to taper off due to vehicle fuel economy improvements. Based on the primary ethanol growth scenario, we're forecasting under today's RFS2 program, the nation is expected to hit the 14-15 billion gallon blend wall around 2014…although it could be sooner if gasoline demand is lower than expected. It could also be lower if projected volumes of non-ethanol renewable do not materialize and ethanol usage is higher than expected.

Estimates on fuel projections were revised after the U.S. and world economy fell into a prolonged recession, reducing energy consumption. In addition, sustained high oil prices have kept gasoline prices well above average, reducing demand. At the same time, automakers began implementing higher CAFE standards, further reducing U.S. domestic demand for fuel. As worldwide economic growth resumed, overseas demand for finished fuel products grew, while U.S. demand continued to decline, prompting petroleum refiners to focus on export markets.

While this confluence of developments has hastened the transition across the E10 ethanol blend threshold, the eventual transition was clearly anticipated in the law, and should have factored into fuel distribution plans of any obligated party intending to comply with the law. Indeed, some obligated parties have adequately anticipated the blend wall by incorporating greater distribution of E85 into their business models, or by investing in development of advanced drop-in biofuels. Unfortunately, some obligated parties have elected to resist incorporation of biofuels and instead challenge the law itself, including through the current waiver petitions.

B. Suite of RFS Compliance Options Exist

Despite certain specious arguments raised in the joint petition, there are a number of compliance options for 2014 and solutions to the blend wall, including the use of higher blends of biofuels, greater distribution of biofuels, increased production of flex fuel vehicles, and greater use of drop-in fuels. As discussed in more detail below, market economics of RINs under the RFS program are already driving investment in each of these options. Because of these factors, we can anticipate a rapid increase in availability of both higher

[10] *Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program; Final Rule*, Environmental Protection Agency, 78 Fed. Reg. 58, 14669, 14759, Mar. 26, 2010, available at: http://www.gpo.gov/fdsys/pkg/FR-2010-03-26/pdf/2010-3851.pdf.

ethanol blends and drop-in alternatives – but only to the extent obligated parties allow market access to these fuels.

Due to flexibility already provided by the RFS, any challenges encountered under the blend wall transition can be mitigated through the compliance mechanisms established in the law. Further, the RFS does not specifically require use of ethanol. Thus, if challenges do arise under the blend wall transition, other biofuels not subject to the ethanol blend wall, such as biobutanol, biodiesel, or renewable hydrocarbons, will rapidly increase in market value. These market forces should hasten the commercial deployment of these alternatives, significantly mitigating blend wall pressure.

*i. The Inherent Flexibility of the RFS Ensures Sufficient RFS Compliance Options*

The RFS itself contributes to a solution to the blend wall for RFS compliance purposes. Under the law, EPA is directed to adjust and set the following year's RVOs by November 30th based on realistic market predictions of production and available supply.[11] To date, EPA has significantly reduced the cellulosic RVOs each year to comport with that market information. It has chosen to maintain the overall RVOs and undifferentiated advanced RVOs. Though, the Agency does have the discretion under the law to adjust any or all of the volume categories downward based on market supply information and expectations.

In fact, in EPA's recently issued final rule setting the 2013 RFS RVOs, the Agency recognized potential challenges to RFS compliance imposed by the blend wall transition. Accordingly, EPA suggested that it may consider adjusting all RVOs downward to help ensure the ability of obligated parties to comply with their RFS RVOs.[12] As we indicated above, given this significant language that affirms EPA's discretion and flexibility, the joint petition is not ripe. How can petitioners demonstrate harm to obligated parties or to the economy of the United States based on RVOs that have not even been formally proposed, and which, in any event, are expected to be reduced?

The RFS also directs and provides EPA the authority to approve new fuel pathways for RFS compliance under the RFS. ***BIO urges the Agency to use this authority and work to quickly approve new fuel pathways so the advanced and cellulosic requirements can be met now, next year and the years ahead.***

*ii. Higher Blends of Ethanol Are a Solution to the Blend Wall*

Greater use of ethanol blends is a solution to the blend wall that involves no new technological development or regulatory approval. One piece of the blend wall solution could be to facilitate greater consumer use of E85 fuel (a blend of 85 percent ethanol and 15 percent gasoline) through investment in downstream petroleum infrastructure (blender pumps, etc.) and Flex Fuel Vehicles (FFVs) that can run on that type of fuel. E85 is approved for use in flex fuel vehicles and could go a long way toward meeting the renewable fuel requirements under the RFS, with the right investments. Just recently, Iowa

[11] CAA, 42 U.S.C. § 7545(o)(3)(B).
[12] *See* The 2013 RFS Final Rule, at 49823.

State University's Center for Agriculture and Rural Development released a new study called "Price it and They Will Buy: How E85 Can Break the Blend Wall."[13] The study's authors conclude that attractively priced E85 can quickly lead to increased consumption of that fuel by as much as three billion gallons over the next two years. Further, they explain that high RIN prices actually serve to incentivize obligated parties to quickly increase E85 consumption because greater consumption of that fuel reduces RINs prices and thus their RFS compliance costs.

More than 90 percent of new cars sold today in Brazil are flex fuel vehicles, and about half of the country's entire fleet has changed over to flex fuel vehicles in less than a decade.[14] U.S. automakers previously made commitments to increase production and sales of flex-fuel vehicles.[15]

Another higher blend that has been approved for use in motor vehicles 2001 and newer and can help overcome the blend wall is gasoline that contains up to 15 percent ethanol blend (E15). Petitioners contend that E15 is not a viable solution to the blend wall partly because it is incompatible with the existing vehicle fleet and because of misfueling concerns. However, as a recent Congressional Research Service report explains,

"[i]n response to industry concerns regarding the…blend wall, the EPA, after substantial vehicle testing, issued a partial waiver for gasoline that contains up to a 15% ethanol blend (E15) for use in model year 2001 or newer light-duty motor vehicles (i.e., passenger cars, light-duty trucks, and sport utility vehicles), but announced that no waiver would be granted for E15 use in model year 2000 and older light-duty motor vehicles, as well as in any motorcycles, heavy duty vehicles, or non-road engines…According to the Renewable Fuel Association (RFA), the approval of E15 use in model year 2001 and newer passenger vehicles **expand[ed] eligibility to 62% of vehicles on U.S. roads at the end of 2010."[16]**

On the petroleum downstream infrastructure side, there are a number of investments that need to be made. In the joint petition, API and AFPM suggest that obligated parties have little impact over new infrastructure investments and decisions that would further enable distribution of higher ethanol blends because the majority of retail gasoline stations are "not owned or operated by the RFS obligated parties."[17] This is not true. For instance, a major impediment to consumer choice is obligated parties blocking station owners from putting in blender pumps that would allow consumers to choose higher blends of biofuels in gasoline.[18] Blender pumps would allow consumers to modify upward the blend of biofuels they desire to purchase. In addition, obligated parties could facilitate marketing arrangements to help

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[13] Bruce Babcock and Sebastien Pouliot, "Price it and They Will Buy: How E85 Can Break the Blend Wall," CARD Policy Brief 13-PB 11, Iowa State University, August 2013, available at: http://www.card.iastate.edu/publications/dbs/pdffiles/13pb11.pdf
[14] UNICA, "Brazilian Transportation Fleet," Sugarcane.org, http://sugarcane.org/the-brazilian-experience/brazilian-transportation-fleet
[15] Beth Evans, "Automakers do not see big US demand for flex-fuel vehicles," Platts, 7 Feb. 2013. http://www.platts.com/RSSFeedDetailedNews/RSSFeed/Oil/6131220
[16] Schnepf, R. and Yacobucci B. "Renewable Fuel Standard (RFS): Overview and Issues." Congressional Research Service, R40155, March 14, 2013. Available at http://www.fas.org/sgp/crs/misc/R40155.pdf. (emphasis added).
[17] *See* The Joint Petition, at 2, 19.
[18] *'Big oil' may block branded retail blender pumps: Green Plains* http://www.platts.com/RSSFeedDetailedNews/RSSFeed/Oil/8102457

incentivize consumers to use higher blends. Other forms of investment to move towards higher blends could involve even greater investment in production and proposed ethanol pipelines to move large quantities of biofuels to high-population areas.

FFVs have the capacity to run on biofuel blends ranging from 0 percent to 85 percent. Thus, depending on the blend, consumers who drive one of the more than 14 million FFVs on the road today will have the opportunity to fuel their cars at retail stations that carry the higher blends. As E85 becomes a competitive fuel, and if the obligated parties such as petitioners' members allow market access to these higher level fuels, demand for FFVs will presumably grow as it did in Brazil during the 2003 to 2006 time period.

*iii. Cellulosic and Advanced Biofuels Help Achieve RFS Compliance*

Another way to address the blend wall is to increase investment in and development of "drop-in biofuels," which have the same properties and composition as petroleum-based fuels and may be used in the existing infrastructure. Because of these factors, existing downstream petroleum infrastructure and engines can run on these fuels even at blends beyond 10 percent. These biofuels, including biobutanol, may be produced from any starch or sugar-based biomass (that achieve a greater than 50 percent lifecycle reduction of greenhouse gas emissions) and blended using existing infrastructure at blends much higher than 10 percent. Due to biobutanol's higher energy content this is equivalent to 21 percent ethanol. Biobutanol has been endorsed by the National Marine Manufacturers Association.

The primary challenge for drop-in biofuels is scale, but this could be addressed with greater investment in this technology (which is supported by the stability of the RFS policy). Certainly as one option to address the blend wall, drop-ins have some very attractive features: they require no change in existing infrastructure and are feedstock flexible and may be produced from both starch, cellulosic or sugar-based biomass sources. In addition, existing ethanol facilities may be cost-effectively retrofit to produce biobutanol and other drop-in biofuels.

The expansion of aviation biofuels as drop-ins would be another potential solution to the blend-wall. Currently, sustainable aviation biofuels, derived from biomass-based plant material and waste fats, are approved for use in many jet engines up to a 50 percent blend, including in all Navy and Air Force engines. This fuel is a drop-in substitute for fossil-based petroleum currently used in aviation. Some commercial airlines have flown test flights on blends of sustainable aviation fuel, and aviation is well-suited for rapid deployment of drop-in biofuels. These drop-in fuels for the commercial aviation industry has system-wide advantages including the ability to use current infrastructure: drop-in biofuels use the same pipelines and tanks as petroleum. Commercial aviation fuels also have highly concentrated nodes of supply and demand, where the largest 40 U.S. airports account for more than 90 percent of jet fuel used by commercial aviation. Thus, if sustainable aviation biofuel producers can deliver to the 40 large airports, in a cost effective manner, they will have access to a large portion of the commercial jet-fuel market.

To date, cellulosic and advanced biofuel companies have invested more than $5 billion dollars in commercializing new technology and feedstock combinations. Commercializing new fuel production technologies has required scaling up through pilot and demonstration projects, taking several years and requiring millions of dollars in capital. Leading companies are at present building, starting up and operating first-of-a-kind commercial facilities.[19] EPA, in consultation with EIA and industry companies, has produced the most accurate projections of coming year production possible. BIO and its member companies support the ongoing process EPA has employed in making these assessments.[20] Some companies are moving forward with plans for construction of additional facilities, based on the operation of these first-of-a-kind facilities. The industry as a whole has moved more quickly to this commercial status than would have been possible without the policy support of the RFS.

Many of the first cellulosic projects – including INEOS Bio, Abengoa and Fiberight – will be producing ethanol. Since cellulosic biofuels achieve the greatest reductions in GHG emissions – compared to the 2005 baseline for gasoline – room must be made in the marketplace for the use of these fuels or the goals of the RFS will be subverted. EPA's annual RVOs establish the size of the marketplace and should be based on the most accurate projection of actual production possible.

The companies that are commercializing this technology understand that the RFS ensures that the market will be open for advanced and cellulosic biofuels, if they can accumulate sufficient capital and produce the fuels.[21] EPA's consistent administration of the RFS rules has encouraged companies and their investors. These investors remain committed to commercialization efforts. But any reduction in the RVOs will discourage additional investment and commercialization effort. For this reason, the joint petition appears calculated to discourage additional capital accumulation and investment in the advanced and cellulosic biofuel industry.

*iv. Biodiesel Can Help Meet the Advanced Biofuels Targets for RFS Compliance*

In their joint petition, petitioners ignore the market opportunity for biodiesel as an advanced biofuel. They claim that because EIA projects continuing decline in gasoline consumption, the RVO should be set at no more than 9.7% of gasoline, plus about 1.6 billion gallons of advanced. This ignores the fact that EIA projects a 0.5% increase in diesel/distillate consumption – to about 53.5 billion gallons -- which is also obligated volume.

The RVOs are nested and do not specify the use of ethanol. The biomass-based diesel RVO is nested within the advanced biofuel category, which is in turn nested within the overall renewable fuel category. Ethanol produced from corn and generating D6 RINs has been the most cost-effective way to meet annual RVOs to date. Ethanol production has scaled up quickly based on fully commercialized technology and robust agricultural value chains. If obligated parties have constructed a blend wall that raises the costs of additional use of ethanol, they can still comply with the RVOs by using greater amounts of biomass-based diesel, which is also a cost-competitive and fully commercialized technology.

[19] Biotechnology Industry Organization (BIO). "The Renewable Fuel Standard: Timeline of a Successful Policy." Washington, DC. June 29, 2012. http://www.bio.org/articles/renewable-fuel-standard-timeline-successful-policy.
[20] *See* BIO Comments on EPA Proposed Rule on "Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards," April 5, 2013, available at http://www.bio.org/advocacy/letters/bio-comments-us-epas-proposed-rule-2013-renewable-fuel-standards.
[21] *See* "The Value Proposition for Cellulosic and Advanced Biofuels under the Federal Renewable Fuel Standard," The Biotechnology Industry Organization, April, 2011, available at: http://www.bio.org/sites/default/files/201104_rfs_whitepaper_3.pdf

*v. RINs Contribute to RFS Compliance*

RINs are part of a solution to the blend wall. Because refiners can transfer or trade RINs, they have many options in setting a strategy to comply with the RFS. Some refiners have chosen not to blend renewable fuels, leaving themselves no option but to purchase RINs from others. For example, Delta Airlines – the parent of Monroe Energy – reported in its most recent quarterly earnings statement to investors, "Because the refinery operated by Monroe does not blend renewable fuels, it must purchase its entire RINs requirement in the secondary market or obtain a waiver from the EPA and is, therefore exposed to the market price of RINs."[22] The company also indicates that it is pursuing legislative and regulatory changes to the RFS as its compliance strategy. Since RINs can only be accumulated when biofuels actually enter the U.S. fuel supply, an increase in RIN prices serves as an incentive for obligated parties to make the investments in infrastructure to increase their blends of biofuels.

EPA should not waive part of the 2014 RFS obligations due to complaints of current high RIN prices. The market for RINs is small and made up largely of oil companies and retailers trading with each other. As a recent New York Times article discusses in detail, speculation among these traders given uncertainty around the 2013 RVO is one of the main reasons for the higher than usual RIN prices this year.[23] While the article suggests that Wall Street brokerages and others have engaged in speculative behavior in the RIN market, the authors correctly note that these brokerages and banks are required to participate in the RFS because they are the parent companies of obligated parties.

According to the Oil Price Information Service, July 17, 2013 article, "Major Gasoline Retailers Raking In Profits from Lucrative RINs Sales,"[24] while the focus has been on obligated parties such as Valero paying for the RINs, it ignores that the sellers of higher priced RINs are generating profits and that they are able to lower the cost of fuel to consumers. These profits are not going to biofuel producers, but to independent gasoline retailers, who are increasingly offering more biofuels to consumers as a result. The article goes on to point out that even while refiners are complaining about the rising RIN costs, they are enjoying robust crack spreads – the measurement between wholesale petroleum product prices and crude oil prices – benefitting from comparatively stronger margins than others.

More importantly, this dynamic illustrates why RIN costs cannot be passed to consumers. Competing refiners and obligated parties have established different strategies for compliance and are realizing different profit margins as a result. While some have increased costs from compliance with the RFS due to their chosen strategy, others may have held costs down and increased profits. Further, some of those who have seen increased costs may change their compliance strategies in a relatively short time and choose to absorb the current costs. CVR Refining, in its quarterly earnings statement to investors, asserts, "Many

[22] Delta Air Lines, Inc. "Quarterly Report, Pursuant to Section 13 or 15(D) of the Securities Exchange Act of 1934, for the quarterly period ended June 30, 2013, Commission File Number 001-5424. http://www.sec.gov/Archives/edgar/data/27904/000002790413000005/dal630201310q.htm..

[23] Gretchen Morgenson and Robert Gebeloff, "Wall Street Exploits Ethanol Credits and Prices Spike," The New York Times, September 14, 2013, available at: http://www.nytimes.com/2013/09/15/business/wall-st-exploits-ethanol-credits-and-prices-spike.html?pagewanted=all&_r=0

[24] Edgar Ang, "Major Gasoline Retailers Ranking In Profits from Lucrative RINs Sales." Oil Price Information Services, July 17, 2013.

petroleum refiners blend renewable fuel into their transportation fuels and do not have to pass on the costs of compliance through the purchase of RINs to their customers. Therefore, it may be significantly harder for us to pass on the costs of compliance with RFS to our customers."[25] With this competitive pressure, obligated parties are currently blocked from passing the cost of RINs to consumers, since others are in a position to hold down costs and undercut the competition. Otherwise, industry-wide increases in consumer prices for fuel based on increased RIN costs, if undertaken in a joint agreement, would represent illegal price setting by refiners.

Obligated parties, including Valero, look for the lowest cost option to comply with the RFS. Until recently, when RIN prices were close to zero, obligated parties had little incentive to invest or use greater amounts of biofuels. High RIN prices help to create this incentive, and incentivizing investment in and use of renewable fuels was the goal of the RFS. Greater production and use of biofuels will help lower the cost of RINs and the price of gas at the pump, which further helps protect the U.S. economy.

IV. Conclusion

EPA should deny the joint petition because petitioners do not meet the requirements to file it, and because it is premature. The appropriate time for petitioners to attempt to influence the 2014 RFS RVOs will be during the public comment period after the proposed rule is issued in the coming weeks.

Even if petitioners are found to meet the requirements to file the joint petition, or if it is determined that their petition is not premature, EPA should deny the requests because the projected harm to the U.S. economy would stem not from the 2014 RFS RVOs, but rather from the ongoing dilatory tactics of the very parties seeking the waivers. The blend wall was anticipated five years ago at the outset of RFS implementation and obligated parties have largely chosen not to prepare for the blend wall. They have not encouraged or facilitated infrastructure investment or new fuel marketing. Instead, most of them are spending their time and advocacy trying to chill investment in greater biofuels production. This includes their filing the joint petition, which is opposed by BIO as reflected in these comments. The petitioners and their members should not be rewarded for these efforts. Rather, the RVOs should be set, as always, through the use of the best market information possible. They should be set as accurately as possible to determine projected production and supply availability.

BIO encourages EPA to investigate barriers preventing biofuels from gaining greater access to the marketplace by obligated parties. Rather than seeing the blend wall as a barrier to greater biofuel production, the Agency should consider encouraging a market-based approach to further the development of infrastructure and to push for the development of new feed stocks and "drop-in" fuels to meet RFS obligations. As explained in these comments, high RIN prices can help incentivize this development.

There a number of compliance options for 2014 and solutions to the blend wall, including the use of higher blends of biofuels, greater distribution of biofuels, increased production of

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[25] CVR Refining, LP. "Quarterly Report Pursuant to Section 13 or 15(D) of the Securities Exchange Act of 1934, For the quarterly period ended June 30, 2013." Commission file number: 001-35781. http://www.sec.gov/Archives/edgar/data/1558785/000104746913008021/a2216199z10 -q.htm.

flex fuel vehicles, and greater use of drop-in alternative fuels. Market economics under the RFS program are already driving investment in each of these options, and EPA can anticipate a rapid increase in availability of both higher ethanol blends and drop-in alternatives as a result – but only to the extent that the obligated parties provide market access to these fuels.

Unfortunately, many of these solutions are currently unattainable due to barriers to the marketplace erected by obligated parties, some of which are described in these comments. EPA should investigate these artificial barriers and, if necessary, take action to remove them so the market for transportation fuel alternatives established by the RFS is allowed to operate efficiently. Any remaining challenges to overcoming the blend wall can be addressed through the broad regulatory flexibility granted to EPA under the statute.

Thank you for considering these comments.

Sincerely,

Brent Erickson
Executive Vice President
Biotechnology Industry Organization (BIO)

October 24, 2013

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Administrator McCarthy,

On behalf of the members of the Biotechnology Industry Organization ("BIO"), which include advanced and cellulosic biofuels producers, we are writing to urge the U.S. Environmental Protection Agency ("EPA") to deny the petition recently filed by Valero Energy Corporation ("Valero" or "petitioner") requesting the EPA waive required volume obligations ("RVOs") under the federal Renewable Fuel Standard (RFS) pursuant to section 211(o)(7)(A) of the Clean Air Act (CAA)[1] ("the petition").

BIO is the world's largest biotechnology organization, with more than 1,100 member companies worldwide. BIO represents leading technology companies in the production of conventional and advanced biofuels and other sustainable solutions to energy and climate change. BIO also represents the leaders in developing new crop technologies for food, feed, fiber, and fuel.

The petition does not specify the RVOs Valero would like EPA to waive. It also does not specify the amount by which it would like EPA to waive the RVOs. Since this letter follows the joint petition filed by the American Petroleum Institute ("API") and American Fuel and Petrochemical Manufacturers ("AFPM") requesting a partial waiver of all of the 2014 RFS RVOs down to about 9.7 percent of domestic fuel supply, it seems reasonable that Valero's petition should be interpreted as consistent with the request by API and AFPM.

Consistent with our letter to EPA with regard to the joint petition filed by API and AFPM,[2] BIO urges the EPA to deny the waiver petition filed by Valero for several reasons. First, Valero's request is not ripe since EPA has not yet released its proposed 2014 RFS RVOs. The company cannot demonstrate harm when the 2014 RVOs have not even been formally proposed. In addition, Valero's interpretation of the blend wall and options for overcoming it are incorrect. As explained in detail below, several options exist for obligated parties, including Valero, to comply with the 2014 RFS RVOs, especially since EPA has indicated its intent to lower those RVOs consistent with actual market supply information. Valero's description of the definition of and limitations to the blend wall are misguided. And, its assertions about the RIN market are inaccurate. In the last paragraph of the petition,

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[1] Letter from the American Fuel & Petrochemical Manufacturers and American Petroleum Institute to U.S. Environmental Protection Agency Administrator Gina McCarthy, August 13, 2013, at 1 [Hereinafter "The Joint Petition"].
[2] *See* Letter from the Biotechnology Industry Organization to the U.S. Environmental Protection Agency Requesting Denial of Joint Petition for a Partial Waiver of the 2014 Renewable Fuel Standard Requirements, September 24, 2013, available at http://www.bio.org/advocacy/letters/bio-submits-letter-epa-urging-them-reject-petroleum-industrys-rfs-waiver-petition-0

1201 Maryland Avenue SW
Suite 900
Washington DC 20024

202.962.9200 P
202.488.6301 F
bio.org

Valero suggests that it is requesting a waiver in part because it believes that waiving the RVOs will reduce RIN prices. That assumes that RIN prices have been driven up this year based on RVOs. This assumption is not correct, so it follows that waiving the 2014 RVOs would not even solve the problem the company describes.

The 2014 RVOs should be set as always through the use of the best market information possible to, as accurately as possible, determine projected production and supply availability. Following this process, there are a number of compliance options for 2014. In addition, contrary to the petitioner's arguments, there are solutions to the blend wall, including the use of higher blends of biofuels, greater distribution of biofuels, increased production of flex fuel vehicles, and greater use of drop-in fuels.

I. The Petition is Not Ripe

EPA should deny the joint petition because it and the relief it requests are premature. It is inappropriate for Valero to request a partial waiver of the 2014 RVOs before it even knows the 2014 RFS RVOs that EPA will propose. The petition has been filed before EPA has even issued its proposed rule setting the 2014 RFS RVOs. Valero should not try to unduly influence the 2014 RVOs outside of the established regulatory process. Therefore, any arguments the petitioner wishes to make should be filed during the public comment period after EPA issues its proposed 2014 RFS rule.

Moreover, in its 2013 RFS final rule, EPA has already indicated that it is aware of the petitioner's exaggerated claims and, if needed, may make appropriate adjustments to the 2014 RFS RVOs.[3] Here, Valero is requesting relief from the 2014 statutory RVOs when it knows that EPA makes annual adjustments to them based on market and supply realities and when EPA has already committed to making appropriate adjustments. The petitioner should wait to see the proposed 2014 RVOs and attempt to influence them during the public comment period.

II. The Petition Misconstrues the RFS, its Goals and the Suite of Options for Compliance

Under Section 211(o)(7)(a) of the Clean Air Act, the Administrator may waive RFS RVO obligations in whole or in part, *after public notice and opportunity to comment*, if she determines that (1) implementation of the requirements would severely harm the economy or environment of a State, a region, or the United States, or (2) that there is an inadequate domestic supply.[4] Valero does not address these standards in its petition, or make an adequate case that continuing implementation of the RFS would cause severe economic damage or an inadequate supply. It merely argues that certain parties are being hurt by high RIN prices as a result of the blend wall.

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[3] *Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards; Final Rule*, Environmental Protection Agency, 78 Fed. Reg.158, 49794, 49798, Aug. 15, 2013, available at: http://www.gpo.gov/fdsys/pkg/FR-2013-08-15/pdf/2013-19557.pdf. [Hereinafter, "the 2013 RFS Final Rule"].
[4] CAA, 42 U.S.C. §7545(o)(7)(A).

As we argued in our letter requesting EPA deny the joint petition, the so-called blend wall exists because of dilatory tactics of obligated parties not to prepare for the blend wall transition, which was anticipated at the outset of RFS implementation nearly five years ago.

Valero outlines various problems with potential blend wall solutions, including increased production and use of E-85 and E-15. The fact is that these fuels are a part of a variety of RFS compliance choices explained in detail below, which taken together provide obligated parties sufficient flexibility and time to plan compliance strategies for 2014 and beyond. Since these compliance options exist, Valero and other obligated parties have sufficient tools to plan ahead for the accumulation of RINs to meet their 2014 RFS RVOs.

Below, please find a more detailed discussion of the realities of the so-called blend wall and the suite of RFS compliance options that exist.

The fact is that the blend wall is not due to infrastructure and engine constraints, but rather as we state above and throughout this letter, it is due to the ongoing dilatory tactics of the oil refining industry. Obligated parties have had more than five years to begin establishing the infrastructure necessary to distribute RFS-mandated fuel volumes, but have taken few steps to do so. Their assertions that the blend wall is a reason to reduce RFS requirements only seeks to undermine the development of homegrown biofuels that promote America's energy security, the biobased economy, and rural development.

A. Obligated Parties Have Chosen Not to Prepare for the Anticipated Blend Wall Transition

Congress first passed the RFS in 2005, and enhanced it and its target volumes of renewable fuels in 2007. In setting the 2022 targets that represented more than 20 percent of projected fuel demand, it is clear that Congress intended the RFS to drive biofuel adoption well beyond the threshold of 10 percent of total fuel consumption. The system of credits and other compliance options articulated in the RFS statute clearly also anticipated the role of RIN-driven market forces in achieving this broader adoption.

Following passage of EISA, EPA anticipated the blend wall when implementing the RFS, stating that "…[c]omplete saturation of the gasoline market with E10 is referred to as the ethanol "blend wall."[5] The height of the blend wall in any given year is directly related to gasoline demand. This was also reflected in AEO 2009, where EIA projected that gasoline demand would peak around 2013 and then start to taper off due to vehicle fuel economy improvements. Based on the primary ethanol growth scenario, we're forecasting under today's RFS2 program, the nation is expected to hit the 14-15 billion gallon blend wall around 2014…although it could be sooner if gasoline demand is lower than expected. It could also be lower if projected volumes of non-ethanol renewable do not materialize and ethanol usage is higher than expected.

Estimates on fuel projections were also revised after the U.S. and world economy fell into a prolonged recession, reducing energy consumption. Sustained high oil prices have also kept

[5] *Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program; Final Rule*, Environmental Protection Agency, 78 Fed. Reg. 58, 14669, 14759, Mar. 26, 2010, available at: http://www.gpo.gov/fdsys/pkg/FR-2010-03-26/pdf/2010-3851.pdf.

gasoline prices well above average, reducing demand. At the same time, automakers began implementing higher CAFE standards, further reducing U.S. domestic demand for fuel. As worldwide economic growth resumed, overseas demand for finished fuel products grew, while U.S. demand continued to decline, prompting petroleum refiners to focus on export markets.

While this confluence of developments has hastened the transition across the E10 ethanol blend threshold, the eventual transition was clearly anticipated in the law, and should have factored into fuel distribution plans of any obligated party intending to comply with the law. Indeed, some obligated parties have adequately anticipated the blend wall by incorporating greater distribution of E85 into their business models, or by investing in development of advanced drop-in biofuels. Unfortunately, other obligated parties have elected to resist incorporation of biofuels and instead challenge the law itself, including through the current waiver petitions.

B. Suite of RFS Compliance Options Exist

Despite arguments raised in the petition, there are a number of compliance options for 2014 and solutions to the blend wall, including the use of higher blends of biofuels, greater distribution of biofuels, increased production of flex fuel vehicles, and greater use of drop-in fuels. As discussed in more detail below, market economics of RINs under the RFS program are already driving investment in each of these options. Because of these factors, we can anticipate a rapid increase in availability of both higher ethanol blends and drop-in alternatives as a result – but only to the extent obligated parties allow market access to these fuels.

Due to flexibility already provided by the RFS, any challenges encountered under the blend wall transition can be mitigated through the compliance mechanisms established in the law. Further, the RFS does not specifically require use of ethanol. Thus, if challenges do arise under the blend wall transition, other biofuels not subject to the ethanol blend wall, such as biobutanol, biodiesel, or renewable hydrocarbons, will rapidly increase in market value. These market forces should hasten the commercial deployment of these alternatives, significantly mitigating blend wall pressure.

*i. The Inherent Flexibility of the RFS Ensures Sufficient RFS Compliance Options*

The RFS itself contributes to a solution to the blend wall for RFS compliance purposes. Under the law, EPA is directed to adjust and set the following year's RVOs by November 30th based on realistic market predictions of production and available supply.[6] To date, EPA has significantly reduced the cellulosic RVOs each year to comport with that market information. It has chosen to maintain the overall RVOs and undifferentiated advanced RVOs. Though, the Agency does have the discretion under the law to adjust any or all of the volume categories downward based on market supply information and expectations.

In fact, in EPA's recently issued final rule setting the 2013 RFS RVOs, the Agency recognized potential challenges to RFS compliance imposed by the blend wall transition. Accordingly, EPA suggested that it may consider adjusting all RVOs downward to help ensure the ability

[6] CAA, 42 U.S.C. § 7545(o)(3)(B).

of obligated parties to comply with their RFS RVOs.[7] As we argued above, given this significant language, the petition is not ripe. How can the petitioner demonstrate harm to obligated parties or to the economy of the United States based on RVOs that have not even been formally proposed and which are expected to be reduced anyway?

The RFS also directs and provides EPA the authority to approve new fuel pathways for RFS compliance under the RFS. ***BIO urges the Agency to utilize this authority and work to quickly approve new fuel pathways to ensure we can meet the advanced and cellulosic requirements for next year and the years ahead.***

*i. Higher Blends of Ethanol Are a Solution to the Blend Wall*

Greater use of ethanol blends is a solution to the blend wall that involves no new technological development or regulatory approval. One piece of the blend wall solution could be to facilitate greater consumer use of E85 fuel (a blend of 85 percent ethanol and 15 percent gasoline) through investment in downstream petroleum infrastructure (blender pumps, etc.) and Flex Fuel Vehicles (FFVs) that can run on that type of fuel. E85 is approved for use in flex fuel vehicles and could go a long way toward meeting the renewable fuel requirements under the RFS, with the right investments. Just recently, Iowa State University's Center for Agriculture and Rural Development released a new study called "Price it and They Will Buy: How E85 Can Break the Blend Wall."[8] The study's authors conclude that attractively priced E85 can quickly lead to increased consumption of that fuel by as much as three billion gallons over the next two years. Further, they explain that high RIN prices actually serve to incentivize obligated parties to quickly increase E85 consumption because greater consumption of that fuel reduces RINs prices and thus their RFS compliance costs.

More than 90 percent of new cars sold today in Brazil are flex fuel vehicles, and about half of the country's entire fleet has changed over to flex fuel vehicles in less than a decade.[9] U.S. automakers previously made commitments to increase production and sales of flex-fuel vehicles.[10]

Another higher blend that has been approved for use in motor vehicles 2001 and newer and can help overcome the blend wall is gasoline that contains up to 15 percent ethanol blend (E15). Valero suggests that E15 is not a viable solution to the blend wall partly because it is incompatible with the existing vehicle fleet and because of misfueling concerns. However, as a recent Congressional Research Service report explains, "[i]n response to industry concerns regarding the…blend wall, the EPA, after substantial vehicle testing, issued a partial waiver for gasoline that contains up to a 15% ethanol blend (E15) for use in model year 2001 or newer light-duty motor vehicles (i.e., passenger cars, light-duty trucks, and sport utility vehicles), but announced that no waiver would be granted for E15 use in

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[7] *See* The 2013 RFS Final Rule, at 49823.
[8] Bruce Babcock and Sebastien Pouliot, "Price it and They Will Buy: How E85 Can Break the Blend Wall," CARD Policy Brief 13-PB 11, Iowa State University, August 2013, available at: http://www.card.iastate.edu/publications/dbs/pdffiles/13pb11.pdf
[9] UNICA, "Brazilian Transportation Fleet," Sugarcane.org, http://sugarcane.org/the-brazilian-experience/brazilian-transportation-fleet
[10] Beth Evans, "Automakers do not see big US demand for flex-fuel vehicles," Platts, 7 Feb. 2013. http://www.platts.com/RSSFeedDetailedNews/RSSFeed/Oil/6131220

model year 2000 and older light-duty motor vehicles, as well as in any motorcycles, heavy duty vehicles, or non-road engines…According to the Renewable Fuel Association (RFA), the approval of E15 use in model year 2001 and newer passenger vehicles **expand[ed] eligibility to 62% of vehicles on U.S. roads at the end of 2010.**"[11]

The misfueling concerns of the petitioner are also unfounded. Automakers, small engine manufacturers and fuel refiners established cooperative standards for fuel to allow engines to both maximize performance and meet Clean Air Act limits on emissions of air and water pollutants. Using any fuel other than that recommended by the engine manufacturer (even different grades of gasoline) can impact an engine's fuel flow, timing, operating temperature, and emission control equipment, reducing engine performance while increasing wear and potentially emissions. For instance, small engines – because they're small – do not have the same emission control features as automobiles and are designed for maximum performance with straight gasoline – or gasoline and oil mixtures. The potential for misfueling a small engine is no greater with ethanol than any other fuel.

On the petroleum downstream infrastructure side, there are a number of investments that need to be made. A major impediment to consumer choice is obligated parties blocking station owners from putting in blender pumps that would allow consumers to choose higher blends of biofuels in gasoline.[12] Blender pumps would allow consumers to modify upward the blend of biofuels they desire to purchase. In addition, obligated parties could facilitate marketing arrangements to help incentivize consumers to use higher blends. Other forms of investment to move towards higher blends could involve even greater investment in production and proposed ethanol pipelines to move large quantities of biofuels to high-population areas.

FFVs have the capacity to run on biofuel blends ranging from 0 percent to 85 percent. Thus, depending on the blend, consumers who drive one of the more than 14 million FFVs on the road today will have the opportunity to fuel their cars at retail stations that carry the higher blends. As E85 becomes a competitive fuel, and if obligated parties allow market access to these higher level fuels, demand for FFVs will presumably grow as it did in Brazil during the 2003 to 2006 time period.

*ii. Cellulosic and Advanced Biofuels Help Achieve RFS Compliance*

Another way to address the blend wall is to increase investment in and development of "drop-in biofuels," which have the same properties and composition as petroleum-based fuels and may be used in the existing infrastructure. Because of these factors, existing downstream petroleum infrastructure and engines can run on these fuels even at blends beyond 10 percent. These biofuels, including biobutanol, may be produced from any starch or sugar-based biomass (that achieve a greater than 50 percent lifecycle reduction of greenhouse gas emissions) and blended using existing infrastructure at blends much higher

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[11] Schnepf, R. and Yacobucci B. "Renewable Fuel Standard (RFS): Overview and Issues." Congressional Research Service, R40155, March 14, 2013. Available at http://www.fas.org/sgp/crs/misc/R40155.pdf. (emphasis added).
[12] *'Big oil' may block branded retail blender pumps: Green Plains*
http://www.platts.com/RSSFeedDetailedNews/RSSFeed/Oil/8102457

than 10 percent. Due to biobutanol's higher energy content this is equivalent to 21 percent ethanol. Biobutanol has been endorsed by the National Marine Manufacturers Association. The primary challenge for drop-in biofuels is scale, but this could be addressed with greater investment in this technology (which is supported by the stability of the RFS policy). Certainly as one option to address the blend wall, drop-ins have some very attractive features: they require no change in existing infrastructure and are feedstock flexible and may be produced from both starch, cellulosic or sugar-based biomass sources. In addition, existing ethanol facilities may be cost-effectively retrofit to produce biobutanol and other drop-in biofuels.

The expansion of aviation biofuels as drop-ins would be another potential solution to the blend-wall. Currently, sustainable aviation biofuels, derived from biomass-based plant material and waste fats, are approved for use in many jet engines up to a 50 percent blend, including in all Navy and Air Force engines. This fuel is a drop-in substitute for fossil-based petroleum currently used in aviation. Some commercial airlines have flown test flights on blends of sustainable aviation fuel, and aviation is well-suited for rapid deployment of drop-in biofuels. These drop-in fuels for the commercial aviation industry has system-wide advantages including the ability to use current infrastructure: drop-in biofuels use the same pipelines and tanks as petroleum. Commercial aviation fuels also have highly concentrated nodes of supply and demand, where the largest 40 U.S. airports account for more than 90 percent of jet fuel used by commercial aviation. Thus, if sustainable aviation biofuel producers can deliver to the 40 large airports, in a cost effective manner, they will have access to a large portion of the commercial jet-fuel market.

To date, cellulosic and advanced biofuel companies have invested more than $5 billion dollars in commercializing new technology and feedstock combinations. Commercializing new fuel production technologies has required scaling up through pilot and demonstration projects, taking several years and requiring millions of dollars in capital. Leading companies are at present building, starting up and operating first-of-a-kind commercial facilities.[13] EPA, in consultation with EIA and industry companies, has produced the most accurate projections of coming year production possible. BIO and its member companies support the ongoing process EPA has employed in making these assessments.[14] Some companies are moving forward with plans for construction of additional facilities, based on the operation of these first-of-a-kind facilities. The industry as a whole has moved more quickly to this commercial status than would have been possible without the policy support of the RFS.

Many of the first cellulosic projects – including INEOS Bio, Abengoa and Fiberight – will be producing ethanol. Since cellulosic biofuels achieve the greatest reductions in GHG emissions – compared to the 2005 baseline for gasoline – room must be made in the marketplace for the use of these fuels or the goals of the RFS will be subverted. EPA's annual RVOs establish the size of the marketplace and should be based on the most accurate projection of actual production possible.

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[13] Biotechnology Industry Organization (BIO). "The Renewable Fuel Standard: Timeline of a Successful Policy." Washington, DC. June 29, 2012. http://www.bio.org/articles/renewable-fuel-standard-timeline-successful-policy.
[14] *See* BIO Comments on EPA Proposed Rule on "Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards," April 5, 2013, available at http://www.bio.org/advocacy/letters/bio-comments-us-epas-proposed-rule-2013-renewable-fuel-standards.

The companies that are commercializing this technology understand that the RFS ensures that the market will be open for advanced and cellulosic biofuels, if they can accumulate sufficient capital and produce the fuels.[15] EPA's consistent administration of the RFS rules has encouraged companies and their investors. These investors remain committed to commercialization efforts. But any reduction in the RVOs will discourage additional investment and commercialization effort. For this reason, the joint petition appears calculated to discourage additional capital accumulation and investment in the advanced and cellulosic biofuel industry.

*iii. Biodiesel Can Help Meet the Advanced Biofuels Targets for RFS Compliance*

There is a market opportunity for biodiesel as an advanced biofuel. EIA projects a 0.5% increase in diesel/distillate consumption – to about 53.5 billion gallons -- which is also obligated volume.

The RVOs are nested and do not specify the use of ethanol. The biomass-based diesel RVO is nested within the advanced biofuel category, which is in turn nested within the overall renewable fuel category. Ethanol produced from corn and generating D6 RINs has been the most cost-effective way to meet annual RVOs to date. Ethanol production has scaled up quickly based on fully commercialized technology and robust agricultural value chains. If obligated parties have constructed a blend wall that raises the costs of additional use of ethanol, they can still comply with the RVOs by using greater amounts of biomass-based diesel, which is also a cost-competitive and fully commercialized technology.

*iv. RINs Contribute to RFS Compliance*

RINs are part of a solution to the blend wall. Because refiners can transfer or trade RINs, they have many options in setting a strategy to comply with the RFS. Some refiners have chosen not to blend renewable fuels, leaving themselves no option but to purchase RINs from others. For example, Delta Airlines – the parent of Monroe Energy – reported in its most recent quarterly earnings statement to investors, "[b]ecause the refinery operated by Monroe does not blend renewable fuels, it must purchase its entire RINs requirement in the secondary market or obtain a waiver from the EPA and is, therefore exposed to the market price of RINs."[16] The company also indicates that it is pursuing legislative and regulatory changes to the RFS as its compliance strategy. Since RINs can only be accumulated when biofuels actually enter the U.S. fuel supply, an increase in RIN prices serves as an incentive for obligated parties to make the investments in infrastructure to increase their blends of biofuels.

EPA should not waive part of the 2014 RFS obligations due to complaints of current high RIN prices. The market for RINs is small and made up largely of oil companies and retailers trading with each other. As a recent New York Times article discusses in detail, speculation among these traders given uncertainty around the 2013 RVO is one of the main reasons for

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[15] *See* "The Value Proposition for Cellulosic and Advanced Biofuels under the Federal Renewable Fuel Standard," The Biotechnology Industry Organization, April, 2011, available at: http://www.bio.org/sites/default/files/201104_rfs_whitepaper_3.pdf

[16] Delta Air Lines, Inc. "Quarterly Report, Pursuant to Section 13 or 15(D) of the Securities Exchange Act of 1934, for the quarterly period ended June 30, 2013, Commission File Number 001-5424. http://www.sec.gov/Archives/edgar/data/27904/000002790413000005/dal630201310q.htm..

the higher than usual RIN prices this year.[17] While the article suggests that Wall Street brokerages and others have engaged in speculative behavior in the RIN market, the authors correctly note that these brokerages and banks are required to participate in the RFS because they are the parent companies of obligated parties.

According to the Oil Price Information Service, July 17, 2013 article, "Major Gasoline Retailers Raking In Profits from Lucrative RINs Sales,"[18] while the focus has been on obligated parties such as Valero paying for the RINs, it ignores that the sellers of higher priced RINs are generating profits and that they are able to lower the cost of fuel to consumers. These profits are not going to biofuel producers, but to independent gasoline retailers, who are increasingly offering more biofuels to consumers as a result. The article goes on to point out that even while refiners are complaining about the rising RIN costs, they are enjoying robust crack spreads, benefitting from comparatively stronger margins than others.

More importantly, this dynamic illustrates why RIN costs cannot be passed to consumers as Valero asserts. Competing refiners and obligated parties have established different strategies for compliance and are realizing different profit margins as a result. While some have increased costs from compliance with the RFS, due to their chosen strategy, others may have increased profits. Further, some of those who have seen increased costs may change their compliance strategies in a relatively short time and choose to absorb the current costs. CVR Refining, in its quarterly earnings statement to investors, asserts, "Many petroleum refiners blend renewable fuel into their transportation fuels and do not have to pass on the costs of compliance through the purchase of RINs to their customers. Therefore, it may be significantly harder for us to pass on the costs of compliance with RFS to our customers."[19] With this competitive pressure, obligated parties are currently blocked from passing the cost of RINs to consumers, since others are in a position to pass profits and undercut the competition. Industry-wide increases in consumer prices for fuel based on increased RIN costs would represent illegal price setting by refiners.

Obligated parties, including Valero, look for the lowest cost option to comply with the RFS. Since their petition was filed on September 10, it was reported that Valero has made the decision to sell RINs.[20] News of their entrance into the RINs markets on October 2 reportedly carried RIN prices down to 37 cents that day, the lowest price since February 2013. Until recently, when RIN prices were close to zero, obligated parties had little incentive to invest or use greater amounts of biofuels. High RIN prices help to create this incentive and incentivizing investment in and use of renewable fuels was the goal of the RFS. Greater production and use of biofuels will help lower the cost of RINs and the price of gas at the pump, which further helps to ensure against damage to the U.S. economy.

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[17] Gretchen Morgenson and Robert Gebeloff, "Wall Street Exploits Ethanol Credits and Prices Spike," The New York Times, September 14, 2013, available at: http://www.nytimes.com/2013/09/15/business/wall-st-exploits-ethanol-credits-and-prices-spike.html?pagewanted=all&_r=0
[18] Edgar Ang, "Major Gasoline Retailers Ranking In Profits from Lucrative RINs Sales." Oil Price Information Services, July 17, 2013.
[19] CVR Refining, LP. "Quarterly Report Pursuant to Section 13 or 15(D) of the Securities Exchange Act of 1934, For the quarterly period ended June 30, 2013." Commission file number: 001-35781. http://www.sec.gov/Archives/edgar/data/1558785/000104746913008021/a2216199z10-q.htm.
[20] Cezary Podkul, "RPT-Ethanol RINS slide to lowest since February as Valero turns seller," Chicago Tribune, October 3, 2013, available at: http://www.chicagotribune.com/sns-rt-rins-valeroselling-repeat-20131003,0,87549,full.story

III. Conclusion

EPA should deny the petition because it is premature. The appropriate time for Valero to weigh in on and attempt to influence the 2014 RFS RVOs will be during the public comment period after the proposed rule is issued in the coming weeks.

Even if EPA finds that the petition is not premature, EPA should deny the requests because Valero's argument fails to prove that continuing to implement the RFS RVOs will cause severe economic damage or that there will be inadequate supply. The blend wall stems not from the 2014 RFS RVOs, but rather from the ongoing dilatory tactics of many obligated parties. The blend wall was anticipated at the outset of RFS implementation, nearly five years ago. Obligated parties have largely chosen not to prepare for the blend wall through encouraging and facilitating infrastructure investment or new fuel marketing. Instead, most of them are spending their time trying to chill investment in greater biofuels production and use through dilatory tactics, including filing the petition opposed by BIO in these comments. The RVOs should be set as always through the use of the best market information possible to, as accurately as possible, determine projected production and supply availability.

BIO encourages EPA to investigate barriers preventing biofuels from gaining greater access to the marketplace by obligated parties. Rather than seeing the blend wall as a barrier to greater biofuel production, the Agency should consider encouraging a market-based approach to further the development of infrastructure and to push for the development of new feed stocks and "drop-in" fuels to meet RFS obligations. As explained in these comments, high RIN prices can help to incentivize this development.

There a number of compliance options for 2014 and solutions to the blend wall, including the use of higher blends of biofuels, greater distribution of biofuels, increased production of flex fuel vehicles, and greater use of drop-in fuels. Market economics under the RFS program are already driving investment in each of these options, and EPA can anticipate a rapid increase in availability of both higher ethanol blends and drop-in alternatives as a result – but only to the extent obligated parties provide market access to these fuels. Unfortunately, many of these solutions are currently unattainable due to barriers to the marketplace erected by obligated parties, some of which are described in these comments. EPA should investigate these artificial barriers and, if necessary, take action to remove them to ensure that the market for transportation fuel alternatives established by the RFS is allowed to operate. Any remaining challenges to overcoming the blend wall can be addressed through the broad regulatory flexibility granted to EPA under the statute.

Thank you for considering these comments.

Sincerely,

Brent Erickson
Executive Vice President
Biotechnology Industry Organization (BIO)

VALERO

**William R. Klesse**
Chief Executive Officer
and Chairman of the Board

September 9, 2013

The Honorable Gina McCarthy
Administrator
Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20004

Ref: Renewable Fuel Standard (RFS)

Dear Administrator McCarthy,

Valero is very unique in the RFS debate as we own 10 ethanol plants and make 1.1 billion gallons per year of corn based ethanol, making us the third largest U.S. ethanol producer. We are also the largest independent petroleum refiner in the U.S.

There is no conspiracy by the oil industry to not market E-85 or E-15, as some have said. For E-85, the market demand is limited, as corn ethanol and petroleum gasoline prices have not allowed the E-85 retail price to be at a level that reflects the low energy content. Thus, it has not been in the consumer's self interest. For E-15, cars that still have a warranty are not approved to use the fuel with the exception of some 2013 models and for those cars without an active warranty, all the negative press results in the consumer not willing to put the fuel into their vehicle. Plus, there is the motorcycle, boat, lawn motor, and other small engine issues. So, there is not demand which would encourage retail facilities to be built. In a way, it is a chicken and egg issue, and companies are not willing to build facilities with the hope that business will come. Also, for Valero, if we marketed such a fuel today, besides the low demand issue, we would surely be sued for marketing a defective product or someone would misfuel.

Because of the pending blendwall resulting from very different fundamentals than when the 2005 and expanded 2007 laws were passed and regulations developed, the high price of RINs is causing a very unfair wholesale and retail market, picking winners and causing losers, based on existing assets and luck.

The high price of RINs is financially hurting:

- Independent, merchant refiners that provide spot market supplies. Most independent refiners are not integrated with the branded market area where the RIN can be separated.
- Retail marketers that are independent business people that have supply contracts - branded or not. Some do not have direct access to wholesale supply and blending facilities. High RIN prices are hurting the small business person.
- The consumer, as the price of gasoline is higher with gasoline blenders being able to pocket the advantage or to take market share from the smaller, lacking blending capability, retail marketer.

**Valero Energy Corporation** • One Valero Way • San Antonio, Texas 78249-1616
Post Office Box 696000 • San Antonio, Texas 78269-6000 • Telephone (210) 345-5896 • Facsimile (210) 345-2943

It was never the intent of the RFS to cause RINs to be a market attracting speculation and picking winners and losers by historical position. RINs were necessary to give the industry flexibility to meet the Renewable Volume Obligation (RVO) and as a way for tracking compliance. Obligated parties should be blenders, not refiners and importers, as they are the party that generates the RIN and thus, since they are marketing a finished fuel, meeting the obligation.

E-10 is widely accepted. Advance ethanol, which requires sugar cane based ethanol, is actually an import mandate. Though significant money has been invested in cellulosic ethanol, including money by Valero, it is still basically nonexistent with only very small volumes expected. Concerning biodiesel and renewable diesel, supply is coming to the market, including Valero's new JV renewable diesel plant in Louisiana.

Because of the mandated volume vs. the actual gasoline demand, E-10 consumption and lack of cellulosic supplies, the program is infeasible. The mandated volume cannot be met by the marketplace. The financial penalty the high RINs is causing is huge for those that are not integrated with controlled retail volumes and huge for consumers. In a way, the program is hurting competition and helping supplies that certainly do not need it.

We support E-10, biodiesel and renewable diesel at the B-2 and B-5 levels depending on blending and seasonality, some incentive for cellulosic, but we do not support an import mandate for advanced or higher ethanol percentages than E-10, except E-85. High RINs prices are not a fair or acceptable way to force higher ethanol volumes.

You have the flexibility to waiver volumes which will lower the price of RINs now, will lower the cost to the consumer and make the marketplace fair. We need the waiver now. Congress, with the Administration, should develop an alternate RFS that encourages the development of the business, but also represents the real world.

Sincerely,

Bill Klesse

**To:** Grundler, Christopher[grundler.christopher@epa.gov]; Stewart, Lori[Stewart.Lori@epa.gov]
**From:** Chris Miller
**Sent:** Mon 1/27/2014 8:51:56 PM
**Subject:** FW: Tier 3 signing event

Hi – thought this might be of interest to you.

thanks, Chris

**From:** Christopher Miller <cmiller@ajw-inc.com>
**Date:** Wednesday, January 8, 2014 4:31 PM
**To:** Arvin Ganesan <ganesan.arvin@epa.gov>
**Cc:** Dan Utech <dan_g._utech@who.eop.gov>
**Subject:** Tier 3 signing event

Hi – Not to get too far ahead of everyone, but…..I have an idea for a Tier 3 signing event that might be attractive to the Administrator or others in the Admin. Never too soon to start some contingency/pre-planning, assuming an early-ish March rule signing.

Please let me know if it might be worthwhile fleshing out for you or someone else.

thanks, C.

**Christopher Miller**, Partner
**AJW, Inc.**
202-296-8086
EPA (b) (6) [redacted]
cmiller@ajw-inc.com

**To:** Grundler, Christopher[grundler.christopher@epa.gov]
**From:** Brooke Coleman
**Sent:** Wed 1/8/2014 9:57:23 PM
**Subject:** 15 min?

You don't have 15-20 minutes in the next few days to listen to an idea we have to deal with the uncertainty around the cellulose number, do you? We are noodling on it at the AEC, quietly, and just wanted to take your informal temperature. Happy to make it very quick. Thanks, -b


R. Brooke Coleman

Executive Director

**Advanced Ethanol Council (AEC)**

www.AdvancedEthanol.org

EPA (b) (6) [redacted] (m)

**To:** Grundler, Christopher[grundler.christopher@epa.gov]
**From:** Brooke Coleman
**Sent:** Wed 1/8/2014 7:56:43 PM
**Subject:** RE: NPR

You just killed me. No mention of how EPA actually deals with ag footprint. No mention of wheat acres massively down in places where corn is up (crop shifting articles are a snore you know). No mention of budget cuts to CRP. So I guess it's all about shaking the tree.

**From:** Grundler, Christopher [mailto:grundler.christopher@epa.gov]
**Sent:** Wednesday, January 08, 2014 2:53 PM
**To:** Brooke Coleman
**Subject:** RE: NPR

A colleague of hers told me she got an award from the AP for her reporting on the RFS, fyi

**From:** Brooke Coleman [mailto:BColeman@advancedethanol.org]
**Sent:** Wednesday, January 08, 2014 2:51 PM
**To:** Grundler, Christopher
**Subject:** RE: NPR

Thanks. I was told Faber was the advocate across from me and the AP was not going to take a position one way or another … so it would be nice and balanced. About 20 minutes into the show after raising my hand 12 times and being ignored by Diane I realized that it was about to be 66% a hit job and 33% of me (if lucky) trying to play whack a mole. About 12 misstatements went unaddressed. I clearly got a little annoyed – but it's never perfect. Their view of what EPA did was just crooked. Dina does not even understand the basics I don't think – and why would she engage so hard there? She's a reporter. Now she's an LCA expert? This world baffles me. Thanks for the note. -b

**From:** Grundler, Christopher [mailto:grundler.christopher@epa.gov]
**Sent:** Wednesday, January 08, 2014 2:41 PM
**To:** Brooke Coleman
**Subject:** NPR

Hey Brooke—heard a re-broadcast of Diane Rhem over the holidays and heard your voice. You did a great job on behalf of your members.  I also appreciated your defense of our technical work against Dina's unfortunate and  uninformed views of LCA

Chris

**To:** Grundler, Christopher[grundler.christopher@epa.gov]
**From:** Brooke Coleman
**Sent:** Wed 1/8/2014 7:50:49 PM
**Subject:** RE: NPR

Thanks. I was told Faber was the advocate across from me and the AP was not going to take a position one way or another … so it would be nice and balanced. About 20 minutes into the show after raising my hand 12 times and being ignored by Diane I realized that it was about to be 66% a hit job and 33% of me (if lucky) trying to play whack a mole. About 12 misstatements went unaddressed. I clearly got a little annoyed – but it's never perfect. Their view of what EPA did was just crooked. Dina does not even understand the basics I don't think – and why would she engage so hard there? She's a reporter. Now she's an LCA expert? This world baffles me. Thanks for the note. -b

**From:** Grundler, Christopher [mailto:grundler.christopher@epa.gov]
**Sent:** Wednesday, January 08, 2014 2:41 PM
**To:** Brooke Coleman
**Subject:** NPR

Hey Brooke—heard a re-broadcast of Diane Rhem over the holidays and heard your voice. You did a great job on behalf of your members. I also appreciated your defense of our technical work against Dina's unfortunate and uninformed views of LCA

Chris

**To:** Grundler, Christopher[grundler.christopher@epa.gov]
**From:** Mary Giglio
**Sent:** Wed 1/8/2014 4:07:36 PM
**Subject:** RE: speaking confirmation for the National Ethanol Conference

thx

**From:** Grundler, Christopher [mailto:grundler.christopher@epa.gov]
**Sent:** Wednesday, January 08, 2014 11:01 AM
**To:** Mary Giglio
**Subject:** RE: speaking confirmation for the National Ethanol Conference

Hi Mary---here is a pic and bio. I will have the rest of the info you need shortly

**From:** Mary Giglio [mailto:MGiglio@ethanolrfa.org]
**Sent:** Tuesday, January 07, 2014 12:23 PM
**To:** Grundler, Christopher
**Cc:** EthanolRFA
**Subject:** speaking confirmation for the National Ethanol Conference

Hi Chris,

I understand from Bob that you have confirmed to speak at the **RFA's 19th Annual National Ethanol Conference: Falling Walls, Rising Tides**, scheduled for Feb. 17-19, 2014 at the JW Marriott Orlando Grande Lakes.

The Impact of the RFS on the Ethanol Industry of Today panel discussion is scheduled for the opening day plenary session on Tuesday, Feb. 18th, starting at 9:15 am in the Mediterranean Ballroom of the JW Marriott Orlando.

I've attached a speaker registration form for you to complete, which will register you complimentary as a speaker.

I have a limited number of government rate rooms ($123/night plus tax) available at the JW Marriott Orlando. To reserve a room, please let me know your arrival and departure dates. I will then send you a confirmation number. They will ask to see your government ID upon check in. Please note our room block expires on January 24, 2014, so I will need this information prior to then.

Also, please send me your bio and photo for the onsite program guide as soon as possible.

Thanks, and please let me know if you have any questions.

Mary Giglio

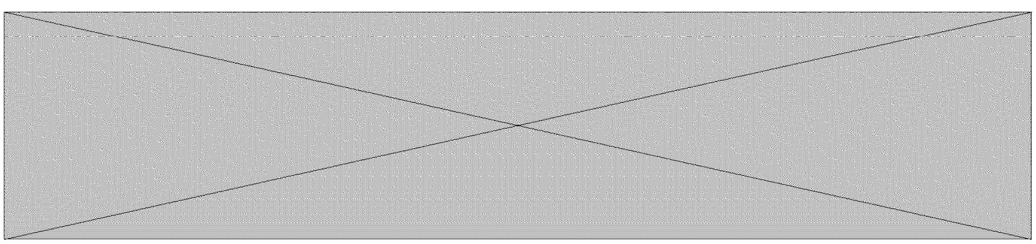
Director, Projects and Special Events

Renewable Fuels Association

(202) 315-2466

mgiglio@ethanolRFA.org

www.ethanolRFA.org



*********************** ATTACHMENT NOT DELIVERED ******************* This Email message contained an attachment named image001.jpg which may be a computer program. This attached computer program could contain a computer

virus which could cause harm to EPA's computers, network, and data. The attachment has been deleted. This was done to limit the distribution of computer viruses introduced into the EPA network. EPA is deleting all computer program attachments sent from the Internet into the agency via Email. If the message sender is known and the attachment was legitimate, you should contact the sender and request that they rename the file name extension and resend the Email with the renamed attachment. After receiving the revised Email, containing the renamed attachment, you can rename the file extension to its correct name. For further information, please contact the EPA Call Center at (866) 411-4EPA (4372). The TDD number is (866) 489-4900.
*********************** ATTACHMENT NOT DELIVERED ***********************

**To:** Grundler, Christopher[grundler.christopher@epa.gov]
**Cc:** EthanolRFA[ethanolrfa@aol.com]
**From:** Mary Giglio
**Sent:** Tue 1/7/2014 5:22:38 PM
**Subject:** speaking confirmation for the National Ethanol Conference
speaker action form.doc

Hi Chris,

I understand from Bob that you have confirmed to speak at the **RFA's 19th Annual National Ethanol Conference: Falling Walls, Rising Tides**, scheduled for Feb. 17-19, 2014 at the JW Marriott Orlando Grande Lakes.

The Impact of the RFS on the Ethanol Industry of Today panel discussion is scheduled for the opening day plenary session on Tuesday, Feb. 18th, starting at 9:15 am in the Mediterranean Ballroom of the JW Marriott Orlando.

I've attached a speaker registration form for you to complete, which will register you complimentary as a speaker.

I have a limited number of government rate rooms ($123/night plus tax) available at the JW Marriott Orlando. To reserve a room, please let me know your arrival and departure dates. I will then send you a confirmation number. They will ask to see your government ID upon check in. Please note our room block expires on January 24, 2014, so I will need this information prior to then.

Also, please send me your bio and photo for the onsite program guide as soon as possible.

Thanks, and please let me know if you have any questions.

Mary Giglio

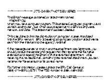
Director, Projects and Special Events

Renewable Fuels Association

(202) 315-2466

mgiglio@ethanolRFA.org

www.ethanolRFA.org



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*********************** ATTACHMENT NOT DELIVERED  *******************

This Email message contained an attachment named
  image001.jpg
which may be a computer program. This attached computer program could
contain a computer virus which could cause harm to EPA's computers,
network, and data.  The attachment has been deleted.

This was done to limit the distribution of computer viruses introduced
into the EPA network.  EPA is deleting all computer program attachments
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If the message sender is known and the attachment was legitimate, you
should contact the sender and request that they rename the file name
extension and resend the Email with the renamed attachment.  After
receiving the revised Email, containing the renamed attachment, you can
rename the file extension to its correct name.

For further information, please contact the EPA Call Center at
(866) 411-4EPA (4372). The TDD number is (866) 489-4900.

***********************  ATTACHMENT NOT DELIVERED **********************
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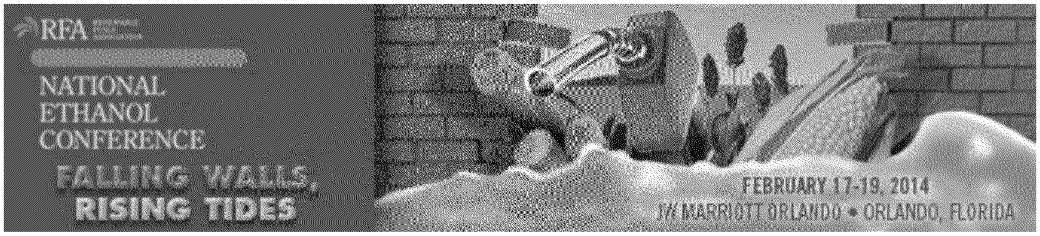


# SPEAKER ACTION FORM

Please complete and fax to 701-746-5367
Or email: bschauer@bbiinternational.com

**COMPLETING THIS FORM WILL REGISTER YOU FOR THE CONFERENCE**

*This information should be as you would like it to appear on your name badge and in the program.*

Name:

Title:

Company:

Address:

City: State: Zip:

Phone: Cell Phone (for onsite):

Email:

## HOTEL RESERVATIONS

We have a block of rooms reserved at the JW Marriott Orlando. After faxing back this registration form, an email confirmation will be sent to the email address above with a link to book your hotel room at our special conference rate. If you have any questions, call Mary Giglio at (202) 315-2466 or mgiglio@ethanolrfa.org.

## BIOGRAPHY & PHOTOGRAPH (Deadline: January 10, 2014)

Please email your biography and photograph to Mary Giglio at mgiglio@ethanolrfa.org. Your biography and photo will be printed in the onsite Conference Program Guide. Please limit your biography to one paragraph. For print quality, your photograph should be high resolution (300 dpi) and formatted in Tif, EPS, PDF or high resolution JPEG.

*Continued on next page*

## PRESENTATIONS

A microphone, screen, LCD projector, and laptop computer will be available onsite for all presentations. Please email your presentation to Mary Giglio at mgiglio@ethanolrfa.org.

☐ Yes, I will be submitting a presentation.

☐ No, I will not be providing a presentation.

**All presentations remain copyright of the speaker. The Renewable Fuels Association reserves the right to distribute printed and/or PDF electronic copies of presentations (not original PowerPoint files) to conference participants. Speakers wishing to limit distribution of a presentation must notify RFA directly of their intentions. If distribution permission is not granted, the speaker agrees to accept correspondence from conference participants seeking additional information.*

## INDUSTRY DATA

Please select the category below best describing your organization:

☐ Academia/Non-profit
☐ Association
☐ Automobile
☐ Construction/Engineering
☐ Consulting
☐ Ethanol Producer (Current)
☐ Ethanol Producer (Future)
☐ Feed Marketer
☐ Finance/Trader/Risk Management
☐ Fuel Marketer
☐ Government
☐ Industry Supplier
☐ Legal
☐ Media
☐ Petroleum Industry
☐ Transportation/Storage/Distribution
☐ Other (please indicate)

## ADDITIONAL INFORMATION

For more information about the conference, including an updated agenda, travel information, and additional activities offered, visit our conference web site at www.nationalethanolconference.com

# Additional NEC Activities

## Annual Golf Tournament (Monday, Feb. 17)

**The Ritz-Carlton Golf Club, 8:30 am shotgun start**
The annual NEC golf tournament is our most popular off-site conference event, providing exclusive networking opportunities in a smaller group setting for our players and sponsors. Prizes awarded for top finishers, longest putt, longest drive and closest to the pin.

**Cost: $199** *(Includes greens fees, golf cart, continental breakfast, lunch, practice facility, range balls and beverage cart)*

**Need Rental Clubs?** *Indicate your needs below and clubs will be waiting at the course. Rental rate is $75.00.*

---

## Networking Day Trip (Monday, Feb. 17)

**Wild Florida Airboat and Wildlife Tour (7:00 am – 2:15 pm)**
The fun-filled day includes breakfast on the go and coffee served in the JW Marriott Orlando lobby, followed by a day at Wild Florida, where aboard an airboat you will experience the serenity and the fascinating nature of undiscovered Florida. Wild Florida Airboats will take you on an eco-tour of undiscovered Florida via the headwaters of the Everglades. Take a closer look at alligators and exotic wild life as you glide through 4,200 acres of untouched nature preserve. Following the airboat tour, you will witness a short gator demonstration and then take a guided tour through Wild Florida's Wildlife Park, and then be treated to a Florida BBQ lunch.

**Cost: $109** *(Includes transportation, tour, breakfast and lunch)*

**Name(s) of the participants:**

---

## Spouse/Guest Program (Tuesday, Feb. 18)

**A Food and Wine Experience at Grande Lakes (8:30 am – 3:30 pm)**
The day includes breakfast, followed by a cooking class, From Garden to Table, at the hotel's featured restaurant, PRIMO, by Melissa Kelly. In the three-hour course, the Chef will advise convenient ways to source sensibly with seasonal and organic product in group and one-on-one interaction. Class will walk the garden to retrieve ingredients for the day's recipes. You will enjoy your freshly made pasta and other dishes for lunch, followed by a wine class and tastings with a Sommelier on how to properly pair wines with food.

**Cost: $129** *(includes breakfast, cooking class, lunch, wine tasting and admittance to NEC receptions)*

**Name(s) of the participants:**

---

## Spouse Reception Tickets (complimentary for RFA members)
Registrants wishing to purchase reception tickets for a spouse or significant other may do so below (sorry, no colleagues). Guests must accompany a conference registrant and name badges are required. *Those attending the spouse/guest trip need not purchase as they are included in the spouse/guest fee.*

☐ **Mon, Feb. 17 Reception**

☐ **Tue, Feb. 18 Reception**

**Please include the full name of the Reception Guest:**

**To:** Grundler, Christopher[grundler.christopher@epa.gov]
**From:** Chris Miller
**Sent:** Thur 1/2/2014 8:57:31 PM
**Subject:** Re: Tier 3 still coming February?

Happy New Year to you too! good luck. will be pushing from outside and on upstairs

**From:** <Grundler>, Christopher Grundler <grundler.christopher@epa.gov>
**Date:** Thursday, January 2, 2014 3:46 PM
**To:** Christopher Miller <cmiller@ajw-inc.com>
**Subject:** Re: Tier 3 still coming February?

Happy New Year. No change in our plan since last we talked

---

**From:** Chris Miller <cmiller@ajw-inc.com>
**Sent:** Thursday, January 02, 2014 3:23:58 PM
**To:** Grundler, Christopher; Stewart, Lori
**Cc:** Laura Vaught
**Subject:** FW: Tier 3 still coming February?

fyi

**From:** Chris Knight <cknight@iwpnews.com>
**Organization:** Inside EPA
**Date:** Thursday, January 2, 2014 11:13 AM
**To:** Christopher Miller <cmiller@ajw-inc.com>
**Subject:** Tier 3 still coming February?

Chris,
Happy New Year. I'm doing a little bit of a check-in on the issues I'm
tracking, including Tier 3.

I saw that Janet McCabe had a meeting with the auto folks on Dec. 20
--
http://yosemite.epa.gov/opa/admpress.nsf/Calendars_3/85256CBD007E4BB785257C47004D61DA?C
On background to an "auto industry source," are you still hearing from
EPA that they're going to get Tier 3 done by February? Or have plans
changed? I could call you, or email would also work.

And anything else interesting going on or coming up in the air/auto world?

Thanks,
Chris

--
Chris Knight
Inside EPA
703-416-8536

www.insideepa.com

**To:** Grundler, Christopher[grundler.christopher@epa.gov]; Stewart, Lori[Stewart.Lori@epa.gov]
**Cc:** Laura Vaught[laura.vaught@mail.house.gov]
**From:** Chris Miller
**Sent:** Thur 1/2/2014 8:23:58 PM
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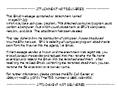
Thanks,
Chris

--
Chris Knight
Inside EPA
703-416-8536
www.insideepa.com

**To:** Grundler, Christopher[grundler.christopher@epa.gov]
**From:** Lola Helming
**Sent:** Thur 12/19/2013 8:48:32 PM
**Subject:** National Biodiesel Board Speaker Confirmation



**Dear Chris Grundler,**

Thank you for agreeing to take part in the National Biodiesel Conference & Expo in San Diego, CA as a session presenter.

NOTE: A few sessions have moved days/times. Please look closely at your session information below.

Your session, **Ask the EPA** is scheduled for **Wednesday, January 22, 2014**, from **3:30 PM - 4:30 PM.**

In order to make the conference a success, we are asking that you complete the following items by the due dates provided.

## Important Deadlines

-

**ASAP:** Your **Bio and Headshot** need to be sent to Lola Helming at lhelming@biodiesel.org.

Your bio should be 5-8 sentences outlining your experience and qualifications. Your bio will be used as an introduction to your session at the conference. We will also be using the bio and headshot on the conference website.

**December 31st:** Your initial **Power Point Presentation** is due and must be sent to **Ben Evans at bevans@biodiesel.org**. NBB reserves the right to review all presentations prior to the conference and could require changes prior to the conference.

**Each room will have a head table with 1-2 microphones, podium with microphone, HP or Dell laptop running Microsoft software, screens, projectors and wireless mouse.**

**Additional Audio Visual Requests** needs to be received by 5:00 PM Pacific Time to stephanie@kinsleymeetings.com or faxed to 303-798-3668. The form is included in this packet of information.

**January 2nd**: **Registration** for the conference should be complete. NBB has provided you with a complimentary registration for the conference. Go to www.biodieselconference.org and complete the attendee online registration process. Select that you are a speaker and enter the **Discount Code: NBBSpeak2014** to receive the discount on your registration. This will only discount Registration, if you would like to attend the Welcome Reception, that fee will apply.

Book your **Airline** and **Hotel** reservations no later than this date. You are responsible for all fees for the airline and hotel. Make sure to reference the group code National Biodiesel Conference in order to secure the conference rate of $239 for a single/double room.

**January 10th:** Your **Final Power Point Presentation** needs to be sent to Lola at lhelming@biodiesel.org by 5:00 PM Pacific Time.

**January 20-23:** Check in at the **Conference Registration Desk** upon arrival to the conference. Any additional details will be provided at that time.

## Additional Information

**ATTIRE:** Business Casual

**SESSION CONTENT CONTACT:**

**Ben Evans - bevans@biodiesel.org**

**LOGISTICAL CONTACT:**

Stephanie Orr, CMP

Kinsley Meetings

Phone: 303-798-3664

Fax: 303-798-3668

Email: stephanie@kinsleymeetings.com

**HOTEL: The San Diego Marriott Marquis & Marina $239/night**

333 West Harbor Drive

San Diego, CA 92101

Phone: 619.234.1500

Reservations: Call 1-800-228-9290 / (619) 234-1500

All individual reservations must be accompanied by one night's deposit plus tax or guaranteed by a major credit card. Hotel will charge credit cards for one night's stay at time of reservation. Deposits are only refundable for cancellations occurring at least 48 hours in advance of the confirmed arrival date.

Please make your reservations by ***January 3, 2014*** to secure the group rate of $239.00 plus tax. After January 3, 2014 rooms will be confirmed on a space-available basis at the group rate.

*Check In:* 3:00 p.m. local time

*Check Out:* 11:00 a.m. local time

Anyone checking out after 11:00 a.m. local time may incur late charges. Special arrangements can be made for late check-outs based on availability, and/or luggage can be stored for individuals with later departures.

**Ground Transportation**

The San Diego Marriott Marquis and Marina is approximately 3 miles from the San Diego International Airport.

**Taxi:** Approximately $15.00 1-way.

**Your complimentary registration fee includes access to the exhibit hall, all educational sessions and planned meal functions. The events that are not included in your registration fee are as follows:**

| Event: | Regular Rate | Late/On-Site Rate |
|---|---|---|
| **Welcome Reception** | | |
| **Monday, January 20th @ 7:00-9:00 pm** | $30 | $40 |

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receiving the revised Email, containing the renamed attachment, you can rename the file extension to its correct name.

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*********************** ATTACHMENT NOT DELIVERED ***********************

**To:** Grundler, Christopher[grundler.christopher@epa.gov]; Vaught, Laura[Vaught.Laura@epa.gov]
**From:** Chris Miller
**Sent:** Mon 12/16/2013 3:56:16 PM
**Subject:** FW: Tier 3
EPA - Tier 3 Letter.pdf

Good morning – just forwarding this Rep Peter's letter on Tier 3 in case you haven't already seen.

thanks, Chris

**Christopher Miller**, Partner
**AJW, Inc.**
202-296-8086
[redacted]
cmiller@ajw-inc.com

Gary C. Peters
Member of Congress
14th District, Michigan
www.peters.house.gov

# Congress of the United States
House of Representatives
Washington, DC 20515

Committee on Financial Services
Subcommittee on Capital Markets and Government-Sponsored Enterprises
Subcommittee on Monetary Policy and Trade
Senior Whip

December 11, 2013

The Honorable Regina McCarthy, Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

Dear Administrator McCarthy:

I write to ask that you quickly finalize Tier 3 regulations to reduce sulfur content in gasoline and emissions from light-duty cars and trucks. Finalizing these regulations will benefit the economy, public health, and provide automotive industry businesses with certainty.

The automotive industry has stepped up to meet the challenge of reducing harmful emissions while improving the performance and reliability of new vehicles. The United States remains a world leader in designing, engineering and manufacturing advanced engine systems that have reduced vehicle emissions by 75% while vehicle miles traveled have tripled. Vehicle and emissions control manufacturers have worked together to come up with solutions to the country's persistent air pollution challenges.

Finalizing the Tier 3 regulation will help continue this success and encourage job-creating investment in emissions control equipment manufacturing. A final rule will also provide for harmonization of federal and states' vehicle emissions standards. This can help reduce the costs associated with both engine systems research and development and with vehicle production and after-market maintenance and performance.

To meet the Tier 3 and greenhouse gas requirements and achieve maximum benefits for air quality, vehicle efficiency, and long-term vehicle performance, the final rule must quickly reduce sulfur content in gasoline to the lowest levels possible. Many petroleum refiners already produce low sulfur fuel, and some are exporting record quantities to overseas markets. Lower-sulfur fuels will provide more opportunities to introduce new high efficiency engine technologies and increase the performance of emission catalysts.

I strongly encourage quick promulgation of the Tier 3 rule to provide ample time for automakers and their suppliers to meet Model Year 2017 design, engineering and production requirements. Doing so will help create and maintain jobs in this important sector and deliver air quality benefits at the lowest cost for consumers. Thank you for your attention to this important matter.

Sincerely,

Gary C. Peters
Member of Congress
Co-Chair, Congressional Automotive Caucus

District Office
400 Monroe Street Suite 290
Detroit, MI 48226
(313) 964-9960
FAX (313) 964-9959

Washington Office
1609 Longworth House Office Building
Washington, DC 20515
(202) 225-5802
FAX (202) 226-2356

**To:** Grundler, Christopher[grundler.christopher@epa.gov]; Argyropoulos, Paul[Argyropoulos.Paul@epa.gov]
**Cc:** Anne Steckel[asteckel@biodiesel.org]; Lindsay Fitzgerald[lfitzgerald@biodiesel.org]
**From:** Larry Schafer
**Sent:** Thur 12/12/2013 8:46:48 PM
**Subject:** Invite to Attend the NBB - 11th annual National Biodiesel Conference & Expo

Chris and Paul:

It was good to see you again yesterday at the EPW hearing.

In January we host nearly 1500 participants at our annual conference. **We invite you to join us for a Panel Discussion about the many issues on which is EPA is working that has a direct impact on the biodiesel sector.**

Including:

- the 2014 RVO;
- the QAP Rule
- the RFS Pathways II and Technical Corrections proposal
- the NODA on Palm
- biodiesel from Argentina and Indonesia; and
- other issues of note.

**What is it: NBB - 11th annual National Biodiesel Conference & Expo**
**San Diego Convention Center**
**111 W. Harbor Dr.**
**San Diego, CA 92101**

**When is it:** January 20 – 23

**The Panel:**

**Title: Ask the EPA**
Wednesday, January 22
3:30 – 4:30 pm

Overview: Curious about future RFS volumes? Wondering about pathways for new feedstocks? Have a question on imports from Asia or South America? Come hear directly from Environmental Protection Agency experts about these pivotal questions as you plan for another year of biodiesel production.

Moderator: Larry Schafer, National Biodiesel Board, Senior Advisor

Panelist: Chris Grundler, Director, EPA Office of Transportation and Air Quality
Paul Argyropoulos, Senior Policy Advisor, EPA Office of Transportation and Air Quality

Thank you so much.   Please consider this invite and I will be back in touch with you both soon.


-----------------------
Larry Schafer
National Biodiesel Board
O: 202.737.8801
[redacted]
LSchafer@Biodiesel.org
-----------------------
**Biodiesel – America's Advanced Biofuel!**
www.americasadvancedbiofuel.com

1331 Pennsylvania Ave. NW
Suite 505
Washington DC 20004

**To:** Grundler, Christopher[grundler.christopher@epa.gov]; Argyropoulos, Paul[Argyropoulos.Paul@epa.gov]
**Cc:** Brent Erickson[berickson@bio.org]; Matthew Carr[mcarr@bio.org]
**From:** Erick Lutt
**Sent:** Fri 12/6/2013 2:51:57 PM
**Subject:** BIO's comments for EPA's Public Hearing for the 2014 Standards for the RFS
13-12-05 BIO Comments for EPA's Public Hearing for the 2014 Standards for the RFS Program, Docket Number EPA-HQ-OAR-2013-0427.pdf

Chris and Paul,

Thank you for the opportunity to present BIO's testimony at yesterday's Public Hearing for the 2014 Standards for the Renewable Fuel Standard Program.

We will be sure to expand upon the issues you and your colleagues brought up following our testimony in our formal comments on the proposed rule.

In the meantime, attached is the full version of our testimony. We provided hard copies to the EPA staff at the hearing and an electronic copy to Julia MacAllister in your Ann Arbor office to make it part of the hearing's official record.

Thank you again for your consideration.


**Erick Lutt**

Director, Industrial & Environmental Section

Biotechnology Industry Organization

Direct: 202.962.6641/Mobile: 202.701.8153

elutt@bio.org


Biotechnology Industry Organization

**Thursday, December 5, 2013**

**U.S. Environmental Protection Agency's Public Hearing for the 2014 Standards for the Renewable Fuel Standard Program, Docket Number: EPA-HQ-OAR-2013-0427**

**Hyatt Regency, Crystal City, 2799 Jefferson Davis Highway, Arlington, VA**

The Biotechnology Industry Organization ("BIO") is pleased to have the opportunity today to comment on the U.S. Environmental Protection Agency's ("EPA") Proposed Rule on the 2014 Standards for the Renewable Fuel Standard (RFS) Program[1] ("the proposed rule") and the renewable volume obligations (RVO) for biofuels in 2014.

BIO is the world's largest trade association representing biotechnology companies, academic institutions, state biotechnology centers and related organizations across the United States and in more than 30 other nations. BIO members are involved in the research and development of innovative healthcare, agricultural, industrial and environmental biotechnology products.

BIO represents nearly 90 companies leading the development of new technologies for producing conventional and advanced biofuels. Through the application of industrial biotechnology BIO members are improving conventional ethanol processes, enabling advanced biofuel production technologies and speeding development of new dedicated energy crops. To date, these companies have invested more than $5.7 billion in private capital here in the United States in building the advanced and cellulosic biofuels industry[2]. Our membership includes four companies EPA cites in its proposed rule as producing commercial gallons of cellulosic biofuels in 2014[3].

---

[1] 2014 Standards for the Renewable Fuel Standard Program, 78 Fed. Reg. 230, 71732 (proposed Nov. 29, 2013) (to be codified at 40 C.F.R. pt. 80) (available at: http://www.gpo.gov/fdsys/pkg/FR-2013-11-29/pdf/2013-28155.pdf) [hereinafter *The Proposed Rule*].
[2] *The Renewable Fuel Standard*, *Timeline of a Successful Policy,* Biotechnology Industry Organization, Jun. 29, 2012, available at: http://www.bio.org/articles/renewable-fuel-standard-timeline-successful-policy
[3] *Visible Progress in Biorefinery Commercialization, Industrial Biotech Companies Show Progress in Commercialization,* Biotechnology Industry Organization, Jun. 15, 2012, available at: http://www.bio.org/articles/visible-progress-biorefinery-commercialization

Our member companies are deeply concerned the proposed rule is a fundamental change in direction and it sets a troubling precedent for the RFS in 2014 and beyond. Creating an inconsistent regulatory climate will undercut investment and undermine the development of advanced and cellulosic biofuels, just as they are set to produce millions of commercial gallons and launch a rapid scale up.

EPA's proposal to waive volumes of the advanced and total renewable fuel RVOs for 2014 is inconsistent with past regulatory practice for previous rules. This regulatory inconsistency will undermine investors' confidence in the program, short-circuiting our companies' efforts to commercialize new technologies that are highly dependent on investment capital. For regulatory consistency and to ensure stable and sustained growth in the advanced and cellulosic biofuels industry, EPA should revise the proposed rule to be consistent with past practice in setting RVOs, EPA's previous interpretation of waiver requests, the plain language of the statute, and Congressional intent.

We believe EPA should revise the advanced and overall renewable fuel RVOs in the proposed rule to reflect the levels required by the statute for 2014[4] and follow actual production and availability of the renewable fuels coming on the market rather than focus on distribution constraints.

BIO is concerned the proposed rule is designed to grant regulatory relief to obligated parties when it is misguided and not warranted. The rapid rise and fall in renewable identification number (RIN) prices that occurred throughout this year was caused by refiners who refused to comply with the spirit of the law and instead looked for escape clauses. EPA is wrong to interpret this summer's rise RIN prices as an indication that RVOs should be reduced. On the contrary, this short-term rise had precise effect intended by Congress in

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[4] Energy Independence and Security Act of 2007, Public Law 110-140, approved December 19, 2007, available at: http://www.gpo.gov/fdsys/pkg/PLAW-110publ140/html/PLAW-110publ140.htm

establishing the RIN market: increased blending of biofuels – especially by previously recalcitrant parties.

While many refiners pursued successful strategies for meeting the RFS goals and began to increase their investments in renewable fuels and the infrastructure necessary to deploy these fuels to consumers, other obligated parties sought to avoid biofuels and instead solely purchase RINs from others. It should also be noted, since RINs are bought and sold among competing refiners, consumers are protected from the costs (Appendix I) – this is a fact verified by refiner quarterly statements to their investors[5]. The final rule should ensure the RIN market continues to work in incentivizing fuel market stakeholders to make the necessary investments in infrastructure for greater deployment of biofuels[6]; rather than give relief to the minority of refiners who have adopted defiant compliance strategies.

BIO recognizes the challenges associated with the RFS; however, codifying a 10-percent "blendwall" is inconsistent with the statute and original Congressional intent. The RFS is the *solution* to the oil-industry erected blend wall. RIN prices must be allowed to function as a market driver for investment in infrastructure and biofuel consumption if we are ever to arrive at a day when consumers have true choice at the pump.

Multiple compliance options are available for distribution of additional volumes of biofuel. Higher blends, such as E15 and E85 fuels are approved fuels[7]. Advanced biofuels that directly drop in to the gasoline supply are also making their way to the market, following years of research and development. Consistent growth in the RFS is essential to give companies the confidence to attract and deploy the capital necessary to bring this new

---

[5] Geoff Cooper, Renewable Fuels Association, *What do Big Oil's Quarterly Earning Say About the Real Impact of RINs on U.S. Gas Prices?*, Aug. 1, 2013, available at: http://www.ethanolrfa.org/exchange/entry/what-do-big-oils-quarterly-earnings-say-about-the-real-impact-of-rins-on-u/

[6] Babcock, B.A., and S. Pouliot. 2013. "The Economic Role of RIN Prices" Policy Brief (13-PB-14), Center for Agriculture and Rural Development, Iowa State University.

[7] Babcock, B.A., and S. Pouliot. 2013. "Price It and They Will Buy: How E85 Can Break the Blend Wall." Policy Brief (13-PB-11), Center for Agriculture and Rural Development, Iowa State University.

technology to maturity. BIO would encourage EPA to use the regulatory flexibility inherent in the law to facilitate the transition over the "blendwall" without decreasing volume obligations.

The RFS was designed by Congress to provide a supportive environment for private companies to develop new technologies, new production infrastructure, and new energy crop supply chains. Our companies have acted on this, investing billions of dollars in private capital in conjunction with federal and state grants to launch this new industry. This proposed rule, signaling the market for biofuels will be frozen at a small percentage of transportation fuels, will strand existing investments in advanced biofuels, significantly curtails any further investment and development of future facilities, and put hundreds of thousands of existing and future jobs at risk. It will undercut the commercialization of other biotechnology research and development, such as the burgeoning renewable chemicals industry, that are following on to the growth of biorefinery platforms encouraged by the RFS.

In addition to the economic impact to the communities directly affected by the closure of a biorefining facility, this proposed rule would reverberate through the entire supply chain; from chemists and engineers developing the new chemicals and processes to make advanced biofuels, to the producers developing new energy crops. Because of the RFS, gas prices were reduced by $1.09 per gallon in 2011, saving the average American household $1,200 on their gas bill. Removing biofuels from the fuel supply will only cause prices to go up at the pump[8].

This proposal could also derail our industry's efforts to turn technological know-how into cleaner transportation fuels, leaving us increasingly dependent on oil, which

[8] Hayes, D.J., and Du, X. 2012, "The Impact of Ethanol Production on U.S. and Regional Gasoline Markets: An Update to 2012." Working Paper (12-WP 258), Center for Agriculture and Rural Development, Iowa State University.

increasingly comes from volatile regions of the world or is extracted in environmentally detrimental ways such as Canadian oil sands or deep water drilling. Today's oil emits 3 percent more greenhouse gas on average than oil used in 2005. Setting the 2014 RFS obligations lower than the 2013 levels – as the administration proposes -- would mean that America will use 100 million additional barrels of oil next year alone. This would result in more than 30 million added tons of greenhouse gases going into the atmosphere[9].

In conclusion, this proposed rule, if finalized and carried into the future will stymie the growth of advanced and cellulosic production, discourage additional innovation in the biotechnology industry, harm economic growth, undermine U.S. energy security, and enable significant backsliding on the nation's environmental goals.

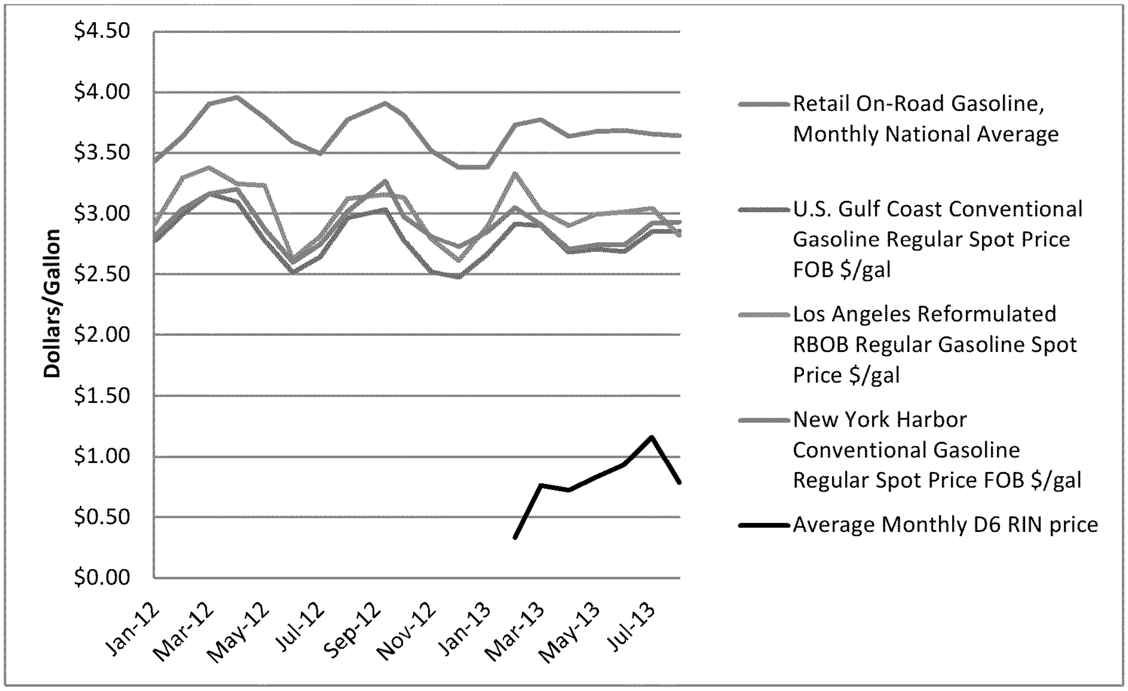
The proposed approach is misguided and misinformed, and must be revised.

[9] Wang, M. et al. "Well-to-wheels energy use and greenhouse gas emissions of ethanol from corn, sugarcane and cellulosic biomass for US Use." Environ. Res. Lett. 7 (2012) 045905 (13pp) doi:10.1088/1748-9326/7/4/045905, available at: http://iopscience.iop.org/1748-9326/7/4/045905/

## Appendix

Appendix I:

**2013 RIN price rises were never reflected in prices at the rack or the pump.**




* Source Energy Information Administration and OPIS

**To:** Grundler, Christopher[grundler.christopher@epa.gov]
**Cc:** Stewart, Lori[Stewart.Lori@epa.gov]; Christopher Hessler[CHessler@ajw-inc.com]
**From:** Chris Miller
**Sent:** Mon 12/2/2013 9:16:14 PM
**Subject:** Re: Followup call

Hi Chris - just thought I'd check back in on this.

Thanks, Chris

Sent from my iPad

> On Nov 22, 2013, at 12:39 PM, "Chris Miller" <cmiller@ajw-inc.com> wrote:
>
> Hi Chris/Lorie - thanks for the time yesterday. You mentioned an interest in a followup call to both of us. We'd like to get that scheduled as soon as is convenient for you. What might work?
>
> Thanks, Chris
>
> Sent from my iPad

**To:** Jonathan Birdsong[jbirdsong@bwstrategies.com]
**Cc:** Grundler, Christopher[grundler.christopher@epa.gov]
**From:** Argyropoulos, Paul
**Sent:** Mon 11/25/2013 3:32:26 PM
**Subject:** RE: Arundo follow-up

Our team had a lengthy conversation with USDA last week. We intend to have another conversation for the staff who have to engage on this at a technical level. We have some general agreement on applying the regulations both in general context and specifically in this case. I'll need to defer a final readout for you until after our next conversation with USDA. I believe we've established an "appropriate" way forward.

Paul Argyropoulos
Senior Policy Advisor
US EPA
Office of Transportation and Air Quality
Phone: 202-564-1123
Mobile: 202-577-9354
Email: argyropoulos.paul@epa.gov
Web: www.epa.gov

-----Original Message-----
From: Jonathan Birdsong [mailto:jbirdsong@bwstrategies.com]
Sent: Monday, November 25, 2013 10:29 AM
To: Argyropoulos, Paul
Cc: Grundler, Christopher
Subject: RE: Arundo follow-up

Checking back...

Thanks!

-----Original Message-----
From: Jonathan Birdsong
Sent: Wednesday, November 20, 2013 12:28 PM
To: Argyropoulos, Paul
Cc: grundler.chris@epa.gov
Subject: Re: Arundo follow-up

Thanks!

Jonathan Birdsong
BlueWater Strategies
400 North Capitol St., NW - Suite 475
Washington, DC 20001
(202) 589-1757 - Direct
EPA (b) (6) [redacted]
jbirdsong@bwstrategies.com

> On Nov 20, 2013, at 12:19 PM, "Argyropoulos, Paul" <Argyropoulos.Paul@epa.gov> wrote:
>
> Sorry Jonathan,
>
> Our call is later today so nothing to report yet. Check back in tomorrow.
>

> Thanks, Paul
>
> Paul Argyropoulos
> Senior Policy Advisor
> US EPA
> Office of Transportation and Air Quality
> Phone: 202-564-1123
> Mobile: 202-577-9354
> Email: argyropoulos.paul@epa.gov
> Web: www.epa.gov
>
>
> -----Original Message-----
> From: Jonathan Birdsong [mailto:jbirdsong@bwstrategies.com]
> Sent: Wednesday, November 20, 2013 9:26 AM
> To: Argyropoulos, Paul; grundler.chris@epa.gov
> Subject: Arundo follow-up
>
> Chris and Paul -
>
> Thanks for taking the time to meet with the folks at ABFA yesterday.
>
> As you know, I work with Chemtex and we are very involved with the USDA re the importation of our cellulosic ethanol to the US from their Italian facility. I appreciated the update yesterday re: the conversations between EPA and USDA to try and move forward. I recognize that neither of you were a part of that call/meeting, but if you have further intelligence from yesterday's call/meeting that you can share, I would greatly appreciate it. We want to be sure that both agencies have everything they need from us and if there is additional information/clarification needed, we can get it to all parties expeditiously.
>
> Again, thanks and I look forward to hearing from you.
>
>
> Jonathan Birdsong
> BlueWater Strategies
> 400 North Capitol St., NW - Suite 475
> Washington, DC 20001
> (202) 589-1757 - Direct
EPA (b) (6) [redacted]
> jbirdsong@bwstrategies.com

**To:** Grundler, Christopher[grundler.christopher@epa.gov]
**Cc:** Stewart, Lori[Stewart.Lori@epa.gov]; Christopher Hessler[CHessler@ajw-inc.com]
**From:** Chris Miller
**Sent:** Fri 11/22/2013 5:38:30 PM
**Subject:** Followup call

Hi Chris/Lorie - thanks for the time yesterday. You mentioned an interest in a followup call to both of us. We'd like to get that scheduled as soon as is convenient for you. What might work?

Thanks, Chris

Sent from my iPad

**To:** Grundler, Christopher[grundler.christopher@epa.gov]
**From:** Michael.McAdams@hklaw.com
**Sent:** Fri 11/22/2013 2:07:41 PM
**Subject:** Thank you

Chris: As always thank you for your contribution to ABFA's Executive Committee discussion this week. Both you and Paul are so very important to our decision making process with regards to the RFS program. We always appreciate your honest assessment and candor concerning our industries participation in the program.

As promised I had a direct and good conversation with Dan on Wed afternoon. He appreciated when I finished that it was I who was discussing the "other participants" in the process. Since that conversation I have already heard directly from Ron and we are to talk today.

The meeting with Bob P and Secretary Vilsack was a good one from the standpoint of giving the participants a chance to express their concerns although the displeasure with the overall direction and its impact on future investment were the key themes. Happy to discuss in further detail.

As always we appreciate all your efforts and the efforts of all your staff. These are challenging times for a very small and new industry so I expect the next couple of months will be somewhat choppy. All the best,

**Michael McAdams** | **Holland & Knight**

**President, ABFA**
Sr Policy Advisor
800 17th Street, NW Suite 1100 | Washington DC 20006
Phone 202.469.5140 | Fax 202.955.5564
michael.mcadams@hklaw.com | www.hklaw.com

Add to address book | View professional biography

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